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HAZARD EVALUATION OF SUBSTANCES TRANSPORTED BY SHIPS

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

The report of the forty-sixth session of the GESAMP/EHS Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships held from 20 to 24 April 2009 (EHS 46/9) is attached for information.

Any comments would be welcome and should be addressed to:

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WORKING GROUP ON THE EVALUATION OF THE HAZARDS OF HARMFUL SUBSTANCES CARRIED BY SHIPS
46th session
Agenda item 9

EHS 46/9
24 April 2009
ENGLISH ONLY

REPORT OF THE FORTY-SIXTH SESSION

1 INTRODUCTION

1.1 The forty-sixth session of the GESAMP/EHS Working Group on the Evaluation of the Hazards of Harmful Substances Carried by Ships was held at IMO Headquarters, London, from 20 to 24 April 2009 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 noted that the following meetings had taken place since the last session of the GESAMP/EHS Working Group:

.1 the fourteenth intersessional meeting of the Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH 14) met from 27 to 31 October 2008;

.2 the Evaluation of Safety and Pollution Hazards (ESPH) Working Group also met from 3 to 4 March 2009 during BLG 13;

.3 the Sub-Committee on Bulk Liquids and Gas held its thirteenth session from 2 to 6 March 2009; and

.4 the Marine Environment Protection Committee had met for its fifty-eighth session from 6 to 10 October 2008.

Matters arising from these meetings which are of relevance to the work of GESAMP/EHS are summarized in annex 3.

1.3 Two items arising from this summary were debated at this point by the Group: the ratings used in the Composite List and the evaluation of petroleum fuels.

1.4 For the former issue, it had been noted that blank entries could sometimes be found for D3 (long-term health effects) and E1 (tainting) properties in the GESAMP/EHS Composite List and it had been questioned by ESPH if this might be interpreted to indicate that data are missing. It had been explained that it had been past practice to leave D3 empty if none of the specified effects under this parameter were judged to be relevant by GESAMP/EHS and that this was also then the default position used in the database which generates the Composite List. A blank for D3 (rather than "-") does not mean therefore that long-term health effects have not been considered or that the profile is consequently incomplete.

1.5 To re-emphasize this point, the Group recalled that Column D3 is intended to represent specific long-term health effects relevant for humans. Where there are available reliable data, from human experience or from appropriate tests in animals, of a specific hazard for human health, this is indicated by a notation in column D3 as described in GESAMP Reports & Studies No.64 (pages 51-56). Alternatively, when there are no relevant data available for a specific health hazard or where reliable data are available indicating no specific health hazard of relevance to humans, column D3 contains a blank entry. Column D3 therefore contains only entries of notations to indicate positive evidence of specific health hazards relevant for humans.

1.6 With respect to parameter E1, it is noted in GESAMP Reports and Studies No.64 that over recent years, an assessment of tainting properties has been withdrawn as a regulatory criterion for classifying chemical substances for transport purposes. In the Composite List, all of the old ratings cited are endorsed by supporting evidence and on this basis, it was decided to retain column E1 data in the hazard profile for information purposes. In taking this action, it was recognized that, in the future, ratings for new substances would no longer be expected to be provided and that, consequently, there would be a growing number of entries in the Composite List where E1 would appear as a blank since data are not available/required.

1.7 On the issue of the evaluation of petroleum fuels, it was noted that BLG/ESPH were requesting the assignment of generic hazard profiles for petrol and diesel in order that bio-fuel blends could be reviewed under MEPC.1/Circ.512 in line with the procedures for mixture products. In this context, these products should be assessed as List 5 entries for the MEPC.2/Circular (Substances not shipped in pure form but as components in mixtures) whereby only ratings for columns A1, A2, B1, B2, D3 and E2 of the GESAMP Hazard Profile need to be assigned.

1.8 The Group considered the approach to adopt in order to be able to progress this issue and recalled that a successful outcome had been achieved for pyrolysis gasoline and coal tar creosote by using a weighted average for each column based on compositional data for a wide range of representative samples. It was concluded that a similar approach should be pursued but it was noted that compositional data should be assembled on as broad a basis as possible in order to give a global representation.

1.9 To effect this, contacts would be made by EHS members with regional petrochemical associations in order to try to assimilate the necessary compositional and safety/environmental information on gasoline (petrol) and diesel. It was noted by the Group that further support or guidance might still be needed from ESPH.

Activities of GESAMP

1.10 The Group received a report from the GESAMP Officer, Mr. Martin Soderberg on a number of recent activities and initiatives which had been undertaken by GESAMP. The key points addressed are summarized in annex 4.

2 EVALUATION OF NEW PRODUCTS

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

.1 Poly(oxyalkylene)alkenyl ether (MW>1000);
.2 Stabilized Yeast Extract Solution;
.3 2-Methylglutaronitrile and 2-Ethylsuccinonitrile;
.4 Octamethylcyclotetrasiloxane;
.5 Crude alpha-Methylbenzyl alcohol;
.6 Tetrapotassium pyrophosphate;
.7 Shale oil;
.8 Jatropha oil; and
.9 Wood lignin with sodium acetate/oxalate

2.2 The resultant hazard profiles for these products are set out in annex 5.

2.3 In considering the various products, the Group made the following observations and comments:

.1 **Poly(oxyalkylene)alkenyl ether (MW>1000)** – the Group decided that the chemical name submitted was too generic and accordingly, it was proposed to modify this to "Poly(ethylene glycol) methylbutenyl ether (MW>1000)". It was noted that for column B2, it had been proposed by the manufacturer that chronic aquatic toxicity might be assessed by a consideration of the 28 day biodegradation properties in conjunction with the acute NOEC values for Fish, Crustaceans and Algae. For the purposes of the GESAMP profile, NI (no information) was recorded for B2 but it was recalled that with respect to the categorization and classification of products, an approach similar to the one proposed was utilized in any case for the assessment of B2 ratings for regulatory purposes by the ESPH Working Group (see annex 7 of BLG 12/3 for further details);

.2 **Stabilized Yeast Extract Solution** – the Group expressed concern that the chemical name submitted needed to be more specific and accordingly, it was proposed to modify this to "Yeast Extract Solution with Propylene Glycol (25% or less)";

.3 **2-Methylglutaronitrile and 2-Ethylsuccinonitrile** – submissions had been received for both crude and refined variants of this product mixture. After assessing the supporting data in each case, the Group concluded that just a single hazard profile was needed to cover both entities, but that the name for this should be "2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less)";

.4 **Octamethylcyclotetrasiloxane** – the Group noted favourably the very comprehensive data set provided to support this material which had facilitated the clear assignment of the hazard profile;

.5 **Crude alpha-Methylbenzyl alcohol** – the Group proposed a revised name for the Composite List of "alpha-Methylbenzyl alcohol with acetophenone (15% or less)". In this submission, it was noted that with respect to acute aquatic toxicity, QSAR data only had been provided. It had been highlighted that this substance rapidly biodegrades to acetophenone (for which acute test results had been supplied) but the Group did not accept that this rationale would necessarily mean that acute toxicity

for the parent compound would be equivalent or no worse than the breakdown material. Nevertheless, by referring to additional literature information, the Group concluded that in this instance a rating for acute aquatic toxicity could be reliably assigned;

.6 **Tetrapotassium pyrophosphate** – the manufacturer noted that very similar substances to this product are treated under the OSPAR Convention as PLONOR materials (Pose Little or No Risk to the Environment). As no underlying reports were available to the Group, this approach was not accepted. The substance was therefore rated on the basis of data identified for similar substances;

.7 **Shale oil** – this product was recognized to be a very complex mix of hydrocarbons and heterocyclic compounds but it was well supported by a comprehensive set of studies on the material as a whole which facilitated the assignment of the hazard profile. Concern was expressed at the log Pow value submitted, however, since this was judged to be at the low end of the range which would be expected for the type of constituents present in this product mixture and a conservative rating was therefore assigned. In terms of sensitization properties, it was noted that the product had shown clear skin effects but that no supporting evidence had been provided to support the claim that this was not a respiratory sensitizer;

.8 **Jatropha oil** – the Group observed that the submission for this product was based predominantly on analogies made with data available for castor oil. Due to the special characteristics of castor oil (carboxylic acids content ca 90% 12-hydroxy-cis-octadec-9-enoic acid), this, however, was not accepted as a good basis on which to conduct an evaluation. Based on data defining the composition of Jatropha oil, analogies were made to other vegetable oils previously reviewed by GESAMP/EHS (particularly Groundnut oil) but note was taken also of minor components present in the product (such as phorbol diesters); and

.9 **Wood lignin with sodium acetate/oxalate** – this product was initially submitted as "Evaporate concentrate for wood pulping industry containing sodium components" but the Group decided that a more descriptive name, as indicated above, was required for the composite list entry.

Cleaning additive components

2.4 The Group noted that for some of the products evaluated, these substances may be used as components in cleaning additive formulations. Although full hazard profiles had been requested, the Group recalled that in accordance with MEPC.1/Circ.590 (Revised tank cleaning additives guidance note and reporting form), a shortened hazard profile only is formally required for cleaning additive components. This allows a Pollution Category to be determined but only requires ratings to be established for columns **A1 (bioaccumulation), A2 (biodegration), B1 (acute aquatic toxicity) and D3 (long-term health effects)**.

2.5 It was stressed, however, that even if only a partial GESAMP profile is required, it is nevertheless imperative that full supporting data are provided for the properties to be reviewed. In this context, the Group reiterated their advice with respect to the submission of data for components of cleaning additives specifying the key elements, as listed below, which need to be addressed when completing the GESAMP form:

Sections 1-4	-	all relevant information;
Section 5	-	molecular weight and water solubility;
Section 7	-	sensitisation and any long term health effects; and
Section 8	-	acute toxicity data; bioaccumulation data; and biodegradation data.

Further guidance on presenting these data are given in the GESAMP Reports and Studies No.64 publication (The Revised GESAMP Hazard Evaluation Procedure for Chemical Substances carried by Ships) and this report may be found at the website http://gesamp.imo.org/publicat.htm. To support all data submissions, the Group further reiterated that summaries with full reference details or complete study reports should always be provided.

2.6 In response to the suggestion proposed by ESPH to identify cleaning additive components in the composite list with an appropriate footnote (so as to highlight that such partial profiles cannot be used for mixture calculations), the Group agreed that in future, this could be incorporated into the database in order to clearly identify such substances (currently, no entries require this).

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

Industry Correspondence

3.1 The Group noted that additional information on the following two products had been received with a request that this be taken into account for the evaluation of these substances. The results of this exercise are set out at annex 6.

Metam sodium solution

3.2 A wide range of new results/supporting data relating to acute aquatic toxicity studies for fish, crustaceans and algae had been submitted for consideration. In assessing this information, the Group concluded that:

.1 the supporting studies provided which were based on the analogous potassium compound were valid for use in the re-evaluation of metam sodium solution;

.2 the materials tested varied across the available studies; sometimes results related to formulated solutions whereas the composite list entry had been based on active substance concentration; and

.3 after taking account of the new data and all of the factors presented, the rating for acute aquatic toxicity (B1) should be amended to a value of 4.

Poly (tetramethylene ether) glycol (mw 600-3000)

3.3 The Group noted that two new reports describing biodegration properties and acute dermal toxicity had been received for consideration. After reviewing the study reports, the Group concluded that a rating of NR for column A2 and a rating of 0 for column C2 should be assigned. With respect to Human Health effects, after re-examining the data files, further amendments to the hazard profile were made as follows: C3=(0), D1=0 and D2=(0). Additionally, for column E3 a revised value of 0 was assigned as consequence of the other changes introduced.

Other products

3.4 In relation to requests arising from EHS 45 for data checks to be undertaken for Heptenes (all isomers), Alkyltoluenesulphonic acid calcium salt and Polyolefin amide alkeneamine polyol, it was noted that no feedback had been received from the manufacturers for these materials. It was agreed, however, that further contact with the producers concerned should be made in order to attempt to resolve these issues. The Group noted that in cases where doubts had later arisen as to the relevance of analogous supporting data which had been used to develop a hazard profile, if the validity of the data could not be confirmed then the profile would be withdrawn from the Composite List.

Miscellaneous amendments

3.5 During a review undertaken by the Secretariat of a section of the GESAMP/EHS files, some anomalies for specific properties in hazard profiles (comparing to information noted in the files) had been observed for a small number of substances. These observations were presented to the Group for their consideration and consequently, some corrections were made to the hazard profiles of the materials shown in annex 7. Changes implemented are indicated against each of the substances listed and these amendments have been incorporated into the updated GESAMP/EHS Composite List as presented in annex 6.

3.6 Additionally, in response to the request made by the ESPH Working Group in relation to sodium bicarbonate solution, the Group agreed to add the descriptor “less than 10%” to this entry in the GESAMP/EHS Composite List.

4 BALLAST WATER TREATMENT BY-PRODUCTS

4.1 At the request of IMO on behalf of the GESAMP Ballast Water Working Group (BWWG), key environmental, human health and physical-chemical properties were reviewed for eighteen substances which are of interest to the Group in the context of their evaluation of ballast water treatment systems. The materials concerned are listed in annex 8.

4.2 Information was requested on a range of phys-chem characteristics and on the properties listed below:

Acute aquatic toxicity	Acute mammalian toxicity
Chronic aquatic toxicity	Corrosion/irritation
Sediment toxicity	Sensitization
Endocrine disruption	Repeated-Dose toxicity
Bioaccumulation	Development and Reproductive toxicity
Modes of degradation	Carcinogenicity/Mutagenicity

4.3 This information was needed in order to assist the BWWG with their risk assessment work on common by-products generated by various oxidizing treatment systems and technical profiles were generated accordingly. In some instances, GESAMP/EHS hazard profiles had previously been assigned and, where available, these were then used as a basis from which to develop the profiles and extended data sets required.

4.4 Full data profiles were developed for the first five products on the list and this information has now been provided to BWWG for consideration in their evaluation work. Further data were also assembled for other products listed for some of the properties required but more work remains to be done in order to complete the exercise. It was noted that in a number of cases, additional data to that initially submitted to BWWG had been identified and that this had been utilized in the review process. Due to the need to establish and record data profiles beyond the standard EHS requirements, it was agreed that the materials evaluated would not be incorporated into the GESAMP/EHS Composite List.

4.5 In reviewing this task, the Group agreed that a meeting with BWWG experts could be beneficial in order to explain fully the approaches adopted, especially in cases where there was a need to reconcile scientific opinions on a chemical substance.

4.6 The Group agreed to continue with this work item intersessionally.

5 CONSOLIDATION OF DATA

Olefin substances and mixtures

5.1 Following on from the request made by BLG/ESPH to review olefin substances and mixtures (see agenda item 1 and annex 3), a comprehensive review of these products was undertaken by the Group. This addressed both nomenclature issues and profile consistency within the product family and resulted in a number of amendments being introduced.

5.2 A summary of the olefin substances and mixtures involved in the review together with their revised ratings are shown in annex 9 (with changes highlighted). These amendments have been incorporated into the updated GESAMP/EHS Composite List as presented in annex 6.

Acrylate and methacrylate esters

5.3 The Group decided that this review item, carried over from previous years was no longer a priority issue in view of updates effected at EHS 44 and that accordingly, it will now not be progressed further and will be withdrawn therefore from the meeting agenda.

6 COMMUNICATION AND PUBLICATION

6.1 The Group recalled that at its previous meeting it had discussed a proposal to prepare a paper for publication on its recent work with the revised GESAMP hazard evaluation procedure. After further discussion on this topic, it was agreed to focus this activity on promoting the methodology developed for the estimation of inhalation toxicity in the context of bulk maritime transport. An initial text had been developed which included details of a comprehensive validation study undertaken in support of this approach and this was reviewed by the Group.

6.2 It was agreed that further work on the draft would be undertaken intersessionally and that this would include setting into context the need and the resultant benefits associated with this work. Consideration of a publication strategy would follow in due course but it was proposed that initially, the review paper could be presented and made available on the GESAMP website.

7 ANY OTHER BUSINESS

Professor Meiko Wakabayashi and Dr. Bryan Ballantyne

7.1 The group noted with sadness the passing away in the intersessional period of two of its former members: Professor Meiko Wakabayashi and Dr. Bryan Ballantyne.

7.2 Professor Wakabayashi served on the working group from 1995 to 2007. She provided continuous access to environmental data from Japan which would otherwise have been unavailable to the group. She was also instrumental in bringing the ecotoxicology sub-group to Japan to hold their meeting in Tokyo on two occasions, so enabling contacts to be made with the Japan Chemicals Industry Association and the Japan Ministeries of Environment and of Transport. This considerably speeded up the work of the group on the review of the environmental sections of the GESAMP hazard profiles for the Revision of Annex II of MARPOL.

7.3 Dr. Ballantyne served on the working group from 1977 to 2000 and contributed continuously to the group's knowledge on the toxicology and human health effects of chemicals for maritime transport as bulk liquids and as packaged goods. He was the senior editor of leading toxicology reference works, in particular General and Applied Toxicology. His knowledge of the potential of chemicals to cause skin, eye and respiratory tract irritation was unique. He was involved in the development of the original GESAMP Hazard Profile (1982) as well as the revised and expanded version in 1998.

Membership issues

7.4 The Group welcomed Mr. Martin Soderberg, GESAMP officer to the meeting (attending part-time) and expressed appreciation for his update on GESAMP activities.

7.5 The Group noted that as yet, it had not been possible to identify a suitable successor for Professor Syversen. It was agreed that efforts should be intensified to recruit a senior toxicologist over the coming months in order to sustain the expertise levels in this area. In a similar context, it was also agreed that additional ecotoxicity expertise/resource should be found in order to strengthen the panel of members available to give support in this field.

7.6 In the cases noted above, the Group agreed that opportunities to involve scientific experts from developing countries in the activities of GESAMP/EHS should be explored.

Funding arrangements

7.7 The Group recalled that charges had now been introduced for the evaluation of new substances in line with the earlier decision taken by MEPC. The mechanism employed treats the evaluation of products to be carried in bulk, products used as a component in a bulk mixture and components used in cleaning additives in an identical manner and is based on a fixed fee/user pays principle. As part of these arrangements, it had been agreed that the fixed fee must be paid each time an evaluation is carried out on a product since this provides a clear incentive to provide the complete range of data necessary for the Working Group to carry out an evaluation in one session. It was noted, however, that the application of further fees was not intended to apply in cases where some follow-up action was needed on a specific issue in order just to clarify study methodology details or test results.

7.8 In the current session, nine product submissions had been processed at the fixed fee rate of US$6,500. Three further products had also initially been put forward for review but these substances were subsequently withdrawn prior to the EHS 46 meeting.

7.9 The Group were advised that, in accordance with MEPC/BLG guidance, the income now available will be used to support and maintain expertise at EHS Working Group meetings in line with the objectives as outlined above.

8 FUTURE WORK PROGRAMME AND DATE OF THE NEXT SESSION

8.1 The Group agreed to a draft work programme for its next session which is set out in annex 10.

8.2 The Group agreed that the next regular meeting would be tentatively held from 19 to 23 April 2010.

8.3 **Submissions for this session should reach the [*]Technical Secretary of the GESAMP/EHS Working Group not later than Friday, 12 March 2010.**

9 CONSIDERATION AND ADOPTION OF THE REPORT

9.1 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 Hazard Profiles, the Chairman closed the session on Friday, 24 April 2009 at 12.10 hrs.

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ANNEX 1

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ANNEX 2

AGENDA FOR THE FORTY-SIXTH 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

- Cleaning Additive components

3 Correspondence with industry and consideration of queries related to evaluations

- Industry correspondence
- Miscellaneous amendments

4 Ballast Water Treatment by-products

5 Consolidation of data:

- Olefin substances and mixtures
- Acrylate and methacrylate esters

6 Communication and publication

- Acute inhalation toxicity review

7 Any other business

- Membership issues
- Review of funding arrangements

8 Future work programme and date of the following session

9 Consideration and adoption of the report

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ANNEX 3

MATTERS ARISING FROM IMO

1.1 At the fourteenth intersessional meeting of the Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals, the ESPH Group had:

.1 elected Mr. David MacRae (United Kingdom) as the new Chairman of the Working Group in succession to Mrs. M. C. Tiemens-Idzinga (Netherlands) who has now relinquished this role after many years of dedicated service;

.2 decided on the coding for Strategic direction, High-level Action Plan and Planned outputs to be used for product evaluation submissions (5.2/5.2.3/5.2.3.1). In this context, GESAMP/EHS activities are reflected under items 1.3/1.3.3/1.3.3.1 as follows:

1.3 Actively seek to reap synergies and avoid duplication of efforts made by other UN agencies in shipping matters;

1.3.3 Monitor developments within GESAMP and make full use of the knowledge available and gained; and

1.3.3.1 Hazard profiles and evaluation of newly submitted substances to be incorporated into the IBC Code;

.3 noted that blank entries under D3 and E1 in the GESAMP/EHS composite list do not indicate missing data since the default in the database is to leave the parameter blank unless an appropriate code letter has been entered. Notwithstanding this, as it was recognized that the use of blank entries might still be seen by some as confusing, it was agreed that this concern should be relayed to GESAMP/EHS for consideration;

.4 agreed that GESAMP/EHS should be requested to review olefin substances and mixtures as it appeared that there may be some inconsistencies within the product family with respect to profiles and names used to describe olefin mixtures;

.5 noted the view that when a toxic solid such as sodium bromide with a low vapour pressure is suspended in water, loaded and discharged under closed conditions and carried at ambient temperature then the requirement for controlled venting during carriage may not need to be applied but had agreed that the issue requires further consideration;

.6 agreed to request GESAMP/EHS to consider adding the descriptor “less than 10%” to the entry for Sodium bicarbonate solution in the composite list;

.7 noted that GESAMP/EHS had carried out a comprehensive review of all phthalate products in the composite list and as a result some hazard profiles had been amended which might impact on carriage requirements under the IBC Code. In consequence, the Group had agreed that when it is observed that a GESAMP hazard profile is not in line with the IBC Code entry, a submission needs to be made to BLG/ESPH to update the carriage requirements;

.8 noted the advice from GESAMP/EHS with regards to the key data elements required when assessing cleaning additive components;

.9 agreed that GESAMP/EHS should be requested to consider if an appropriate footnote could be included for cleaning additive component entries in the GESAMP/EHS composite list to indicate that these materials cannot be used in mixture calculations, as specified in MEPC.1/Circ.512;

.10 agreed a procedure for handling confidential data in relation to product evaluations and had noted growing concerns from industry with respect to maintaining confidentiality; and

.11 decided that mixtures containing more than 1% but less than 85% petroleum oil, should be assessed in accordance with MEPC.1/Circ.512 following the procedures for mixtures with unassessed components that show a safety hazard.

1.2 The ESPH Working Group also met during BLG 13 and during this session, the ESPH Group had:

.1 agreed that if anomalies are raised by Administrations with regards to assigned carriage requirements, and a GESAMP Hazard Profile, then a document submission to ESPH should be made in line with normal procedures;

.2 agreed further that whenever, changes are made by GESAMP/EHS (as a consequence of new data becoming available or product families being reassessed) any impact on carriage requirements should be addressed by the ESPH Group at the time of reviewing EHS activities;

.3 proposed to extend interim guidelines to permit the continued carriage of bio-fuel blends on Annex I ships (further 24 months from the date of expiry agreed by BLG);

.4 proposed that GESAMP/EHS should be requested to generate appropriate hazard profiles for petroleum fuels leading to List 5 entries in the MEPC.2/Circular (Substances not shipped in pure form but as components in mixtures) in order to address the issue of unassessed components in bio-fuel blends; and

.5 noted the satisfactory progress made in the revision of chapter 19 of the IBC Code and had requested that any comments or input from interested parties should be provided to Mr. R. Luit of the Netherlands for consolidation into the review (e-mail: Richard.Luit@rivm.nl).

1.3 In BLG 13, the Sub-Committee approved the reports of the ESPH Working Group and:

.1 endorsed the proposals made by the Group and concurred with actions taken;

.2 proposed to invite MSC 86 and MEPC 59 to approve the holding of an intersessional meeting of the ESPH Working Group in 2010; and

.3 developed a draft MSC resolution for consideration and adoption at MSC 86 on Recommendations for material safety data sheets (MSDS) for MARPOL Annex I oil cargo and oil fuel.

1.4 The Marine Environment Protection Committee (MEPC) had held its fifty-eighth session and during this meeting, MEPC had:

.1 approved the report of BLG 12 in general;

.2 approved the holding of an intersession meeting of the ESPH Working Group in 2009, noting MSC 84's concurrent decision; and

.3 endorsed the view of the BLG Sub-Committee that the Chairman of the GESAMP/EHS Working Group should be present, if needed, at ESPH Working Group meetings during the debate on the report and the discussion on the evaluation of new products for inclusion in the IBC Code. Funding support, as required, should be made available from the revenue arising from the charging mechanism put into place for EHS evaluations.

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ANNEX 4

REVIEW OF GESAMP ACTIVITIES
(M. Soderberg)

1. Since the last meeting of WG1, a new GESAMP Officer has been appointed in succession to Mr. Fredrik Haag. The new officer is Mr. Martin Soderberg.

2. Mr. Soderberg introduced himself to the group and updated the group about GESAMP activities during the past year, the major items being:

.1 The Chairman of WG1, Dr. Tim Bowmer, was elected Chairman of GESAMP at GESAMP 35, the annual session of GESAMP which, in 2008, was held in Accra, Ghana;

.2 there are currently seven GESAMP working groups active together with one Task Team. The group was informed as to the work activities and progress made for each group;

.3 GESAMP is participating in the Assessment of Assessments (AoA), the start-up phase of the UN Regular Process. GESAMP has observer status and has set up a Task Team to address Pollution in the Open Ocean, as part of the regional summaries for the Assessment of Assessments;

.4 the GESAMP Office and the Sponsoring Organizations are working on finalizing a new GESAMP Memorandum of Understanding, the aim of which is to make GESAMP more transparent, and to allow for easier co-operation between the Sponsoring Organizations; and

.5 GESAMP has a new website which features a Pool of Experts and a Virtual Office. The website will facilitate communication with the scientific community as well as the general public and the Pool of Experts will help working groups and Sponsoring Organizations to recruit scientific expertise. The Virtual Office will facilitate internal communications, e.g. between members of working groups and the members of WG1 were given a demonstration of how the Virtual Office will operate.

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ANNEX 5 - NEW SUBSTANCES SUBMITTED FOR EVALUATION (GESAMP Hazard Profiles)

30 April 2009
Page 1 of 1

EHS Name / TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Jatropha oil	2402	0	NI	(0)	(R)	(2)	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Jatropha oil	3637		RTECS No						CAS No							
alpha-Methylbenzyl alcohol with acetophenone (15% or less)	2399	1	NI	1	(R)	(1)	NI	(1)	(0)	(3)	(2)	(3)	R		Fp	3
Crude alpha-Methylbenzyl alcohol	3634		RTECS No						CAS No		98-85-1					
2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less)	2397	0	NI	0	R	0	NI	2	2	3	0	1			FD	2
2-Methylglutaronitrile and 2-Ethylsuccinonitrile	3632		RTECS No						CAS No		4553-62-2					
Octamethylcyclotetrasiloxane	2398	5	5	5	NR	0	3	0	0	0	0	0			F	1
Octamethylcyclotetrasiloxane	3633		RTECS No						CAS No							
Poly(ethylene glycol) methylbutenyl ether (MW >1000)	2395	NI	0	0	R	1	NI	0	0	(0)	0	0			D	0
Poly(oxyalkylene)alkenyl ether (MW>1,000)	3501		RTECS No						CAS No							
Shale oil	2401	(5)	NI	(5)	NR	3	0	0	0	(2)	2	2	CS		Fp	3
Shale oil	3636		RTECS No						CAS No							
Tetrapotassium pyrophosphate	2400	Inorg	0	0	Inorg	1	NI	0	NI	NI	NI	NI			D	NI
Tetrapotassium pyrophosphate	3635		RTECS No						CAS No		7320-34-5					
Wood lignin with sodium actetate/oxalate	2403	NI	NI	(0)	NR	(0)	NI	0	(0)	(1)	(1)	(1)			D	1
Wood lignin with sodium actetate/oxalate	3638		RTECS No						CAS No							
Yeast Extract Solution with Propylene Glycol (25% or less)	2396	NI	0	0	R	0	NI	0	0	(1)	0	1			D	1
Stabilized Yeast Extract Solution	3631		RTECS No						CAS No		8013-01-2					

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ANNEX 6

UPDATED COMPOSITE LIST

Note:

In the Composite List, both EHS and TRN (shipping) names as registered in the database are now shown for each product.

ANNEX 6 - GESAMP/EHS COMPOSITE LIST
GESAMP Hazard Profiles

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Acetic acid	13	0	0	0	R	1	NI	1	1	1	3C	3			D	3
Acetic acid	64		**RTECS No**		AF1225000				**CAS No**		64-19-7					
Acetic anhydride	12	0	0	0	R	1	NI	1	0	2	3	3	A		D	3
Acetic anhydride	65		**RTECS No**		AK1925000				**CAS No**		108-24-7					
Acetochlor (ISO)	2047	3	2	2	NR	4	NI	1	0	(1)	0	0			S	2
Acetochlor	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
Acetone	67		**RTECS No**		AL3150000				**CAS No**		67-64-1					
Acetone cyanohydrin	14	0	0	0	R	4	NI	3	4	3	(3)	(3)			D	3
Acetone cyanohydrin	68		**RTECS No**		OD9275000				**CAS No**		75-86-5					
Acetonitrile	16	0	0	0	R	1	NI	1	1	2	1	2			D	2
Acetonitrile	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			D	2
Acetonitrile (Low purity grade)	2876		**RTECS No**						**CAS No**							
Mixed acid oil	2306	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	(1)	1			Fp	2
Acid oil mixture from soyabean, corn (maize) and sunflower oil refining	3036		**RTECS No**						**CAS No**							
Acrylamide	23	0	0	0	R	2	0	2	2	(2)	1	2	CMNS		D	3
Acrylamide solution (50% or less)	70		**RTECS No**		AS3325000				**CAS No**		79-06-1					
Acrylic acid	24	0	0	0	R	4	NI	2	2	2	3C	3			D	3
Acrylic acid	71		**RTECS No**		AS4375000				**CAS No**		79-10-7					
Acrylonitrile	25	0	2	2	NR	3	0	2	3	3	2	2	CSM	NT	DE	3
Acrylonitrile	72		**RTECS No**		AT5250000				**CAS No**		107-13-1					
Acrylonitrile-styrene copolymer dispersion in polyether polyol (LOA)	1432	NI	0	0	NI	1	NI	0	(0)	(0)	0	(0)			S	0
Acrylonitrile-Styrene copolymer dispersion in polyether polyol	73		**RTECS No**						**CAS No**							
Adiponitrile	26	0	0	0	R	1	NI	3	(3)	3	3	(3)			FD	3
Adiponitrile	74		**RTECS No**		AV2625000				**CAS No**		111-69-3					
Alachlor (ISO)	1488	3	3	3	NI	4	1	1	0	(2)	1	0	CS		S	3
Alachlor technical (90% or more)	75		**RTECS No**		AE1225000				**CAS No**		15972-60-8					
Alcoholic beverages	293	0	0	0	R	0	0	0	0	0	0	1			D	1
Alcoholic beverages, n.o.s.	85		**RTECS No**						**CAS No**							

ANNEX 6 - GESAMP/EHS COMPOSITE LIST
GESAMP Hazard Profiles

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alcohol(C8-C11) poly(2.5-9)ethoxylates	2094	3	3	3	R	3	NI	1	0	(2)	(2)	(2)			D	2
Alcohol (C9-C11) poly (2.5-9) ethoxylate	2209		**RTECS No**						**CAS No**							
Alcohol(C6-C17)(secondary) poly(3-6)ethoxylate	722	4	3	3	R	4	2	0	(0)	(3)	3	2			D	3
Alcohol (C6-C17) (secondary) poly(3-6)ethoxylates	81		**RTECS No**						**CAS No**							
Alcohol(C6-C17)(secondary) poly(7-12)ethoxylate	295	3	3	3	R	4	1	1	0	(3)	3	3			D	3
Alcohol (C6-C17) (secondary) poly(7-12)ethoxylates	80		**RTECS No**						**CAS No**							
Alcohol(C12-C16) poly(1-6)ethoxylates	294	5	3	3	R	4	1	0	0	(2)	2	2			FD	2
Alcohol (C12-C16) poly(1-6)ethoxylates	77		**RTECS No**						**CAS No**							
Alcohol(C12-C16) poly(20 and above)ethoxylates	1482	4	(3)	(3)	R	2	0	(0)	(0)	(2)	2	1			D	2
Alcohol (C12-C16) poly(20+)ethoxylates	78		**RTECS No**						**CAS No**							
Alcohol(C12-C16) poly(7-19)ethoxylates	1481	4	3	3	R	4	1	1	0	(3)	3	3			D	3
Alcohol (C12-C16) poly(7-19)ethoxylates	79		**RTECS No**						**CAS No**							
Alcohols, C13 and above as individuals and mixtures	2039	5	2	2	R	4	1	0	0	0	(1)	(1)			Fp	2
Alcohols (C13+)	86		**RTECS No**						**CAS No**							
Fatty alcohols, linear, (C16+)	2327	(5)	(2)	(2)	(R)	(0)	(1)	0	0	(1)	1	1			Fp	2
Alcohols, linear (C16+)	3082		**RTECS No**						**CAS No**							
Fatty alcohols, linear, (C12+)	2326	(5)	(2)	(2)	(R)	(4)	(1)	0	0	(1)	1	1			Fp	2
Alcohols (C12+), primary, linear	3081		**RTECS No**						**CAS No**							
Alcohols (C8-C11)	2279	5	2	2	(R)	(3)	(1)	(0)	(0)	(2)	(2)	(2)			Fp	2
Alcohols (C8-C11), primary, linear and essentially linear	2887		**RTECS No**						**CAS No**							
Alcohols (C12-C13), linear	2294	5	2	2	R	4	(1)	0	0	(1)	1	1			Fp	2
Alcohols (C12-C13), primary, linear and essentially linear	2950		**RTECS No**						**CAS No**							
Alcohols (C14-C18), linear	2293	5	2	2	R	0	1	0	0	(1)	1	1			Fp	2
Alcohols (C14-C18), primary, linear and essentially linear	2951		**RTECS No**						**CAS No**							
Alkanes (C6-C9)	2202	(5)	NI	(5)	(R)	(4)	NI	(0)	(0)	(1)	(2)	(2)	N		FE	2
Alkanes (C6-C9)	88		**RTECS No**						**CAS No**							
Iso- and cyclo-alkanes (C10-C11)	2203	(5)	NI	(5)	NI	(0)	(0)	(0)	(0)	(1)	(1)	(0)			F	1
Iso- and cyclo-alkanes (C10-C11)	393		**RTECS No**						**CAS No**							
Iso-and cyclo-alkanes (C12+)	2204	(5)	NI	(5)	NI	(0)	NI	0	0	(1)	NI	NI			NI	1
Iso- and cyclo-alkanes (C12+)	394		**RTECS No**						**CAS No**							

ANNEX 6 - GESAMP/EHS COMPOSITE LIST
GESAMP Hazard Profiles

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alkanes(C12 -C26), linear and branched	2392	0	NI	0	R	0	NI	0	0	(1)	1	1	A		F	3
Alkanes(C12 -C26), linear and branched	3562		**RTECS No**						**CAS No**		90622-53-0					
n-Alkanes (C10-C20)	296	(5)	NI	(5)	(R)	(0)	(0)	(0)	(0)	(1)	(1)	(0)	A		F	3
n-Alkanes (C10+)	471		**RTECS No**						**CAS No**							
Alkaryl polyether (C9-C20) (LOA)	1974	4	NI	4	NR	3	NI	0	0	(3)	2	3			S	2
Alkaryl polyethers (C9-C20)	90		**RTECS No**						**CAS No**							
[OLOA 17503]	2376	5	(3)	(3)	R	2	NI	0	0	(2)	2	0			Fp	2
Alkenoic acid ester, borated	3153		**RTECS No**						**CAS No**							
Alkenylamide, long chain, more than C10	1858	3	NI	3	(NR)	4	NI	0	(0)	(1)	0	1			Fp	2
Alkenyl (C11+) amide	838		**RTECS No**						**CAS No**							
Alkenyl succinic anhydride	298	0	0	0	NR	1	NI	0	0	(2)	2	(2)	S		FD	2
Alkenyl (C16-C20) succinic anhydride	2336		**RTECS No**						**CAS No**							
Alkyl acrylate/Vinyl pyridine copolymer in toluene	299	2	2	2	R	2	0	0	0	(2)	2	2	RNA		F/Fp	3
Alkyl acrylate-vinylpyridine copolymer in toluene	94		**RTECS No**						**CAS No**							
Alkyl amine, alkenyl acid ester, mixture	1433	NI	NI	NI	NI	1	NI	(0)	(0)	NI	NI	NI	S		Fp	3
Alkyl(C8+)amine, Alkenyl (C12+) acid ester mixture	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	(1)	1	0			S	1
Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomers)	280		**RTECS No**						**CAS No**							
Alkylated phenols (C4-C9)	2273	0	2	0	NR	1	0	1	0	(2)	1	1			Fp	2
Alkylated (C4-C9) hindered phenols	2575		**RTECS No**						**CAS No**							
Alkyl (C12-C15) benzene/indane/indene mixture	1872	0	4	4	NR	0	NI	0	0	0	0	2			FE	2
Alkylbenzene, alkylindane, alkylindene mixture (each C12-C17)	103		**RTECS No**						**CAS No**							
Alkyl benzene distillation bottoms	300	0	2	2	NR	0	(3)	0	0	1	1	1			Fp	2
Alkyl benzene distillation bottoms	3106		**RTECS No**						**CAS No**							
Alkylbenzene mixtures (containing at least 50% of toulene)	2303	(2)	(2)	(2)	(R)	(3)	(0)	0	0	(2)	2	2	ACMNR		FE	3
Alkylbenzene mixtures (containing at least 50% of toluene)	2909		**RTECS No**						**CAS No**							
Alkyl (C3-C4) benzenes	2206	(3)	NI	(3)	R	4	NI	0	0	(2)	(2)	(1)			FE	2
Alkyl (C3-C4) benzenes	91		**RTECS No**						**CAS No**							
Alkyl (C5-C8) benzenes	2207	5	4	4	(NR)	4	NI	0	0	(2)	(2)	(1)			F	2
Alkyl (C5-C8) benzenes	92		**RTECS No**						**CAS No**							

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alkyl benzenes, C9-C17 (straight or branched)	1783	0	4	4	NR	1	NI	0	(0)	(1)	(1)	(1)			F	1
Alkyl(C9+)benzenes	100		**RTECS No**						**CAS No**							
Dodecyl benzene sulphonic acid (contains 1.5% Sulphuric acid)	1739	NI	NI	3	R	3	1	1	(1)	(2)	(1)	(1)			D	2
Alkyl (C11-C17) benzene sulphonic acid	101		**RTECS No**						**CAS No**							
Alkyl(C11-C13)benzenesulphonates, straight chain	301	3	3	3	R	3	1	1	(1)	(3)	2	3			FD	3
Alkylbenzene sulphonic acid, sodium salt solution	102		**RTECS No**		DB4370000				**CAS No**		42615-29-2					
Dodecyl-, Tetradecyl-, Hexadecyl-dimethylamine mixture	2248	3	NI	3	R	5	2	1	(1)	(3)	3C	3			F	3
Alkyl (C12+) dimethylamine	2485		**RTECS No**						**CAS No**							
Alkyl dithiocarbamate (C19-C35)	2236	0	NI	0	NI	1	NI	0	0	(0)	0	0			S	0
Alkyl dithiocarbamate (C19-C35)	2538		**RTECS No**						**CAS No**							
Alkyl dithio thiadiazole (C6-C24) (LOA)	1981	5	NI	5	NR	1	NI	0	0	(0)	0	0			S	2
Alkyldithiothiadiazole (C6-C24)	104		**RTECS No**						**CAS No**							
Alkyl(C4-C20) ester copolymer (LOA)	1986	NI	0	0	NR	0	NI	0	0	(0)	0	0			Fp	2
Alkyl ester copolymer (C4-C20)	2202		**RTECS No**						**CAS No**							
Alkyl[(C8-C10)/(C12-C14)]:(<40%/>60%)polyglucoside mixture solution (max 55% active material)	2134	3	NI	3	R	3	0	0	0	(3)	2	3			D	3
Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less)	2248		**RTECS No**						**CAS No**		141464-42-8					
Alkyl[(C8-C10)/(C12-C14)]:(>60%/<40%)polyglucoside mixture solution (max 55% active material)	2135	3	NI	3	R	2	0	0	0	(2)	2	2			D	2
Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution(55% or less)	2246		**RTECS No**						**CAS No**		141464-42-8					
Alkyl (C7-C9) nitrates	8	4	NI	4	NR	3	NI	0	0	(3)	2	(3)	S		F	3
Alkyl (C7-C9) nitrates	93		**RTECS No**						**CAS No**							
Nonyl(C6-C12)phenol poly(4-12)ethoxylate	1063	4	NI	4	NR	3	1	0	0	(2)	2	1			D	2
Alkyl(C7-C11)phenol poly(4-12) ethoxylate	97		**RTECS No**						**CAS No**							
Alkyl(C8-C40)phenol sulphide (LOA)	1985	0	NI	0	NR	0	NI	0	0	(1)	1	1			FD	1
Alkyl (C8-C40) phenol sulphide	2253		**RTECS No**						**CAS No**							
Alkyl(C8-C9)phenylamine, in aromatic solvent (LOA)	2096	2	NI	2	NR	3	NI	(0)	(0)	(2)	2	2			S	2
Alkyl (C8-C9) phenylamine in aromatic solvents	2200		**RTECS No**						**CAS No**							
ACTACLEAR 1700 Carrier Fluid (TN)	2188	0	NI	0	NR	0	NI	0	0	(2)	2	2			FD	2
Alkyl (C9-C15) phenyl propoxylate	2430		**RTECS No**						**CAS No**							
Alkyl(C8-C10)polyglucoside solution (max 65% active material)	2136	1	NI	1	R	2	0	0	0	(2)	2	2			D	2
Alkyl (C8-C10) polyglucoside solution (65% or less)	2245		**RTECS No**						**CAS No**		68515-73-1					

ANNEX 6 - GESAMP/EHS COMPOSITE LIST
GESAMP Hazard Profiles

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)	2133	3	NI	3	R	2	0	0	0	(3)	2	(3)			D	3
Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)	2247		**RTECS No**						**CAS No**							
Alkyl(C12-C14)polyglucoside solution (max 55% active material)	2137	3	NI	3	R	3	0	0	0	(3)	2	3			D	3
Alkyl (C12-C14) polyglucoside solution (55% or less)	2249		**RTECS No**						**CAS No**		110615-47-9					
Linear alkyl(C12-16)propoxyamine ethoxylate	2380	3	0	0	NR	4	NI	1	(1)	(3)	3	(3)	S		D	3
Alkyl(C12-C16) propoxyamine ethoxylate	3423		**RTECS No**						**CAS No**							
Saturated and unsaturated alkyl (C10-C20) phosphite (LOA)	2108	0	NI	0	R	1	NI	0	0	(0)	0	0			Fp	2
Alkyl(C10-C20, saturated and unsaturated) phosphite	96		**RTECS No**						**CAS No**							
Alkylsulphonic acid ester of phenol (MESAMOLL)	1878	5	NI	5	NR	0	NI	0	(0)	(0)	0	0			S	0
Alkyl sulphonic acid ester of phenol	1701		**RTECS No**						**CAS No**		91082-17-6					
Alkyltoluenes	2374	0	2	2	NR	0	NI	0	(0)	(1)	0	1			Fp	2
Alkyl (C18+) toluenes	3148		**RTECS No**						**CAS No**							
Alkyltoluenesulfonic acid, calcium salts	2373	0	NI	0	NR	0	NI	0	0	(3)	3	1	S		S	3
Alkyltoluenesulphonic acid, calcium salts	3149		**RTECS No**						**CAS No**							
Allyl alcohol	28	0	0	0	R	4	NI	2	3	4	2	3	A		D	3
Allyl alcohol	105		**RTECS No**		BA5075000				**CAS No**		107-18-6					
3-Chloropropylene	478	1	1	1	R	3	NI	1	0	2	1	3	T		E	3
Allyl chloride	106		**RTECS No**		UC7350000				**CAS No**		107-05-1					
Aluminium chloride/hydrogen chloride solution	336	Inorg	NI	2	Inorg	3	1	1	(0)	3	(3C)	3			D	3
Aluminium chloride (30% or less)/Hydrochloric acid (20% or less) solution	110		**RTECS No**						**CAS No**							
Aluminium sulphate solution	2205	Inorg	Inorg	2	Inorg	3	1	1	(0)	(3)	(2)	(3)			D	3
Aluminium sulphate solution	111		**RTECS No**						**CAS No**							
2-(2-Aminoethoxy) ethanol	75	0	0	0	NR	1	0	0	1	(3)	3	3			D	3
2-(2-Aminoethoxy) ethanol	37		**RTECS No**		KJ6125000				**CAS No**		929-06-6					
Aminoethylethanolamine/Aminoethyldiethanolamine solution	74	Inorg	0	0	NR	1	0	(2)	(1)	(3)	(3B)	(2)	S		D	3
Aminoethyldiethanolamine/Aminoethylethanolamine solution	113		**RTECS No**						**CAS No**							
Aminoethylethanolamine	68	0	0	0	NR	1	0	0	0	0	3B	2	S		D	3
Aminoethyl ethanolamine	112		**RTECS No**		KJ6300000				**CAS No**		111-41-1					
N-Aminoethylpiperazine	88	0	0	0	NR	1	NI	0	2	(3)	3	3	S		D	3
N-Aminoethylpiperazine	472		**RTECS No**		TK8050000				**CAS No**		140-31-8					

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
2-Amino-2-(hydroxymethyl)-1,3-propanediol solution(40% or less)	89	0	NI	0	NI	1	NI	0	0	NI	NI	NI			D	NI
2-Amino-2-hydroxymethyl-1,3-propanediol solution (40% or less)	38		**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			DE	3
2-Amino-2-methyl-1-propanol	39		**RTECS No**		UA5950000				**CAS No**		124-68-5					
Ammonia (anhydrous and aqueous, 28% or less)	91	0	0	0	R	3	2	1	(2)	3	3	3			DE	3
Ammonia aqueous (28% or less)	114		**RTECS No**		BO0875000				**CAS No**		7664-41-7					
Ammonium bisulphite solution, greater than 15%	1730	NI	NI	NI	NI	1	NI	NI	NI	NI	2	2			D	2
Ammonium bisulphite solution (70% or less)	115		**RTECS No**		WT3595000				**CAS No**		10192-30-0					
Ammonium chloride solution (less than 25%)	2388	0	NI	0	Inorg	1	0	0	(0)	(2)	2	2			D	2
Ammonium chloride solution (less than 25%) drilling brines	3411		**RTECS No**		BP4550000				**CAS No**		12125-02-9					
Diammonium hydrogen phosphate	98	0	0	0	Inorg	1	NI	0	0	(0)	(1)	(1)			D	1
Ammonium hydrogen phosphate solution	117		**RTECS No**						**CAS No**		7783-28-0					
Ammonium lignosulphonate (46% solution in water)	2086	0	NI	0	NR	0	NI	0	(0)	(0)	0	0			D	0
Ammonium lignosulphonate solutions	118		**RTECS No**						**CAS No**		8061-53-0					
Ammonium nitrate solutions	1912	Inorg	0	0	Inorg	1	NI	0	0	(2)	1	2			D	2
Ammonium nitrate solution (93% or less)	119		**RTECS No**						**CAS No**							
Ammonium polyphosphate solution	1764	Inorg	0	0	Inorg	1	NI	0	0	0	1	0			D	1
Ammonium polyphosphate solution	120		**RTECS No**						**CAS No**		10-34-0					
Ammonium sulphate	99	0	0	0	Inorg	1	(0)	0	(0)	(0)	0	0			D	0
Ammonium sulphate solution	121		**RTECS No**		BS4500000				**CAS No**		7783-20-2					
Ammonium sulphide soln.(45% or less)	310	Inorg	0	0	Inorg	3	NI	1	0	(2)	2	2	N		D	2
Ammonium sulphide solution (45% or less)	122		**RTECS No**		BS4900000				**CAS No**		12124-99-1					
Ammonium thiocyanate/ Ammonium thiosulphate solution	1732	Inorg	0	0	Inorg	1	NI	1	NI	NI	NI	NI			D	NI
Ammonium thiocyanate (25% or less)/Ammonium thiosulphate (20% or less) solution	123		**RTECS No**						**CAS No**							
Ammonium thiosulphate solution (60% or less)	312	Inorg	0	0	Inorg	1	NI	0	(0)	(1)	(1)	(1)			D	1
Ammonium thiosulphate solution (60% or less)	124		**RTECS No**		XN6465000				**CAS No**		7783-18-8					
Amyl acetate	255	2	2	2	NR	2	NI	0	(0)	0	1	1	S	NT	FED	2
Amyl acetate (all isomers)	125		**RTECS No**		AJ1925000				**CAS No**		628-63-7					
1-Pentanol	1110	1	1	1	(R)	1	0	1	0	(3)	2	3			FED	3
n-Amyl alcohol	473		**RTECS No**		SB9800000				**CAS No**		71-41-0					

ANNEX 6 - GESAMP/EHS COMPOSITE LIST
GESAMP Hazard Profiles

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
3-Methyl-1-butanol	965	1	1	1	(R)	1	0	1	0	(2)	2	2			FED	2
Amyl alcohol, primary	126		**RTECS No**		EL5425000				**CAS No**		123-51-3					
2-Pentanol	1111	1	1	1	R	1	0	0	(0)	(2)	2	2			D	2
sec-Amyl alcohol	637		**RTECS No**		SA4900000				**CAS No**		6032-29-7					
2-Methyl-2-butanol	964	1	1	1	R	1	0	1	1	1	3	2			D	3
tert-Amyl alcohol	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			ED	2
tert-Amyl methyl ether	2210		**RTECS No**						**CAS No**							
Aniline	261	0	0	0	R	3	2	2	2	3	1	3	CTS	NT	FD	3
Aniline	127		**RTECS No**		BW6650000				**CAS No**		62-53-3					
Apple juice	275	0	NI	0	R	0	0	0	0	0	0	0			D	0
Apple juice	130		**RTECS No**						**CAS No**							
Aryl polyolefin (C11-C50) (LOA)	1979	NI	NI	0	NR	0	NI	0	0	0	0	0			Fp	2
Aryl polyolefins (C11-C50)	131		**RTECS No**						**CAS No**							
Aviation alkylates (C8 paraffins and iso-paraffins BPt 95-120 Celcius)	286	(5)	NI	(5)	(R)	(4)	NI	0	0	(0)	(0)	(0)			FE	2
Aviation alkylates (C8 paraffins and iso-paraffins BPT 95 - 120°C)	132		**RTECS No**						**CAS No**							
Barium long chain alkaryl sulphonate (C11-C50) (LOA)	1978	4	NI	4	NR	3	NI	2	0	(2)	0	0			S	2
Barium long chain (C11-C50) alkaryl sulphonate	2370		**RTECS No**						**CAS No**							
Benzene	324	2	1	1	R	2	NI	1	0	0	2	2	CTM	NT	E	3
Benzene and mixtures having 10% benzene or more (i)	133		**RTECS No**		CY1400000				**CAS No**		71-43-2					
Benzene sulphonyl chloride	320	1	1	1	R	(1)	NI	1	(2)	(3)	3	3			SD	3
Benzene sulphonyl chloride	134		**RTECS No**		DB8750000				**CAS No**		98-09-9					
1,2,4-Benzene tricarboxylic acid, trioctyl ester	1733	0	0	0	NR	0	NI	0	(0)	2	1	1			Fp	2
Benzenetricarboxylic acid, trioctyl ester	136		**RTECS No**						**CAS No**							
Benzyl acetate	348	1	NI	1	R	3	1	1	0	2	1	1			SD	2
Benzyl acetate	138		**RTECS No**		AF5075000				**CAS No**		140-11-4					
Benzyl alcohol	349	1	NI	1	R	2	NI	1	1	2	2	2			SD	2
Benzyl alcohol	139		**RTECS No**		DN3150000				**CAS No**		100-51-6					
Benzyl chloride	352	NI	1	1	R	3	1	1	(2)	3	3	3	CSA		S	3
Benzyl chloride	140		**RTECS No**		XS8925000				**CAS No**		100-44-7					

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl), 4-hydroxy-C7-C9 alcohols branched and linear	2378	0	3	3	NR	3	0	0	0	(0)	0	0			Fp	2
3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid, (C7-C9)-branched alkyl esters	3405		**RTECS No**						**CAS No**							
N,N-Bis(2-hydroxyethyl)oleamide (LOA)	2110	5	NI	5	NR	NI	NI	0	0	(2)	2	2			Fp	2
N,N-bis(2-hydroxyethyl) oleamide	2201		**RTECS No**						**CAS No**							
Borax, anhydrous or hydrated, crude or refined	359	Inorg	0	0	Inorg	1	0	0	0	(1)	1	1	R		S	3
Borax	143		**RTECS No**		VZ2275000				**CAS No**		1303-96-4					
Boric acid	360	Inorg	0	0	Inorg	1	0	0	(0)	(1)	1	1	R		S	3
Boric acid	2254		**RTECS No**		ED4550000				**CAS No**		10043-35-3					
Pol (2-8) alkylene (C2-C3) glycols/ Polyalkylene (C2-C10) glycols monoalkyl ethers and their borate esters	2358	(1)	NI	(1)	(R)	(1)	(0)	0	0	0	2	2			D	2
Brake fluid base mix: Poly(2-8)alkylene (C2-C3) glycols/Polyalkylene (C2-C10) glycols monoalkyl (C1-C4) ethers and their borate esters	144		**RTECS No**						**CAS No**							
Bromochloromethane	2084	1	1	1	NR	1	NI	0	0	0	1	0			SD	1
Bromochloromethane	145		**RTECS No**		PA5250000				**CAS No**		74-97-5					
1-Bromopropane	2229	2	NI	2	NI	NI	NI	0	(0)	0	(2)	(2)			SD	2
1-Bromopropane	2696		**RTECS No**						**CAS No**							
Butene oligomer	386	0	NI	0	NR	(4)	0	0	0	0	0	1			FE	2
Butene oligomer	146		**RTECS No**						**CAS No**							
Butyl acetate	387	1	NI	1	R	2	NI	0	0	2	0	1			FED	2
Butyl acetate (all isomers)	147		**RTECS No**		AF7350000				**CAS No**		123-86-4					
Butyl acrylate	390	2	NI	2	R	3	NI	1	1	1	2	2	SA		FED	2
Butyl acrylate (all isomers)	148		**RTECS No**		UD3150000				**CAS No**		141-32-2					
Butanol	381	0	(0)	0	R	0	NI	0	0	0	2	3		NT	D	3
Butyl alcohol (all isomers)	2216		**RTECS No**		EO1400000				**CAS No**		71-36-3					
Butanol	381	0	(0)	0	R	0	NI	0	0	0	2	3		NT	D	3
n-Butyl alcohol	474		**RTECS No**		EO1400000				**CAS No**		71-36-3					
sec-Butanol	383	0	(0)	0	R	0	NI	0	0	0	0	2		NT	D	2
sec-Butyl alcohol	638		**RTECS No**		EO1750000				**CAS No**		78-92-2					
tert-Butanol	384	0	0	0	NR	1	NI	0	0	0	1	3		NT	D	3
tert-Butyl alcohol	686		**RTECS No**		EO1925000				**CAS No**		75-65-0					
Butylamine	392	0	NI	0	R	2	NI	2	2	3	3C	3			DE	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Butylamine (all isomers)	154		**RTECS No**		EO2975000				**CAS No**		109-73-9					
Butyl benzene	1774	4	NI	4	NI	4	1	0	0	(2)	2	1			Fp	2
Butylbenzene (all isomers)	155		**RTECS No**		CY9070000				**CAS No**		104-51-8					
Butyl benzyl phthalate	398	4	4	4	R	4	2	0	0	(0)	(0)	(0)	R		S	3
Butyl benzyl phthalate	149		**RTECS No**		TH9990000				**CAS No**		85-68-7					
Butyl butyrate	399	2	NI	2	(R)	2	NI	0	0	(1)	1	NI			FE	2
Butyl butyrate (all isomers)	150		**RTECS No**		ES8120000				**CAS No**		109-21-7					
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	2295	(5)	NI	(5)	(R)	(3)	NI	0	0	0	2	2	S		FE	2
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	153		**RTECS No**						**CAS No**							
Butylene glycol(s)	402	0	NI	0	R	1	NI	1	0	0	0	0			D	1
Butylene glycol	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		DE	3
1,2-Butylene oxide	8		**RTECS No**		EK3675000				**CAS No**		106-88-7					
Di-butyl ether	578	3	3	3	NR	2	NI	0	0	0	1	1			FE	2
n-Butyl ether	475		**RTECS No**		EK5425000				**CAS No**		142-96-1					
Butyl methacrylate	409	2	NI	2	NR	1	NI	0	0	0	2	2	S		FE	2
Butyl methacrylate	151		**RTECS No**		OZ3675000				**CAS No**		97-88-1					
Butyl octyl phthalate	410	5	NI	5	(R)	0	2	0	(0)	(1)	(1)	(1)			Fp	2
Butyl octyl phthalate	2749		**RTECS No**						**CAS No**		84-78-6					
Butyl propionate	1483	2	NI	2	R	2	NI	0	0	0	1	1			FED	2
n-Butyl propionate	476		**RTECS No**		UE8245000				**CAS No**		590-01-2					
Butyl stearate	413	0	NI	0	(R)	0	NI	0	NI	NI	2	NI			Fp	2
Butyl stearate	152		**RTECS No**		WI2900000				**CAS No**		123-95-5					
Butyraldehyde	416	1	NI	1	R	2	0	0	1	0	3	3			DE	3
Butyraldehyde (all isomers)	157		**RTECS No**		ES2275000				**CAS No**		123-72-8					
Butyric acid	418	0	NI	0	R	2	0	0	0	0	3A	3			D	3
Butyric acid	158		**RTECS No**		ES5425000				**CAS No**		107-92-6					
Butyrolactone	420	0	NI	0	R	(3)	NI	1	(0)	0	0	1	C		D	3
gamma-Butyrolactone	360		**RTECS No**		LU3500000				**CAS No**		96-48-0					
Calcium alkyl phenol sulphide,polyolefin phosphorosulphide mixture (LOA)	1435	NI	NI	NI	NR	4	NI	0	0	(0)	NI	NI			NI	NI

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Calcium alkyl (C9) phenol sulphide/Polyolefin phosphorosulphide mixture	160		**RTECS No**						**CAS No**							
Calcium alkyl salicylate	2015	3	NI	3	NR	2	NI	0	0	(2)	2	2			Fp	2
Calcium alkyl (C10-C28) salicylate	3152		**RTECS No**						**CAS No**							
Calcium carbonate slurry	2016	Inorg	0	0	Inorg	0	NI	0	(0)	(1)	0	1			S	2
Calcium carbonate slurry	161		**RTECS No**		FF9335000				**CAS No**		471-34-1					
Calcium hydroxide	431	Inorg	0	0	Inorg	2	NI	0	(0)	(2)	1	2			S	2
Calcium hydroxide slurry	162		**RTECS No**		EW2800000				**CAS No**		1305-62-0					
Calcium hypochlorite solutions containing less than 15% but more than 1.5% Ca(OCl)2	2073	Inorg	0	0	Inorg	(4)	NI	1	0	2	3A	3			D	3
Calcium hypochlorite solution (15% or less)	163		**RTECS No**		NH3485000				**CAS No**		7778-54-3					
Calcium hypochlorite solutions containing 15% Ca(OCl)2 or more	432	Inorg	0	0	Inorg	5	NI	1	0	2	3A	3			D	3
Calcium hypochlorite solution (more than 15%)	164		**RTECS No**		NH3485000				**CAS No**		7778-54-3					
Calcium lignosulphonate (52% solution in water)	2087	0	NI	0	NR	0	NI	0	(0)	(0)	0	0			D	0
Calcium lignosulphonate solutions	165		**RTECS No**						**CAS No**		8061-52-7					
Calcium long chain alkaryl sulphonate (C11-C50) (LOA)	1973	NI	0	0	NR	0	NI	0	0	(1)	1	1	S		FD	2
Calcium long-chain alkaryl sulphonate (C11-C50)	169		**RTECS No**						**CAS No**							
Calcium long chain alkyl (C5-C10) phenate (LOA)	2106	0	NI	0	NR	2	NI	0	0	(0)	0	0			FD	1
Calcium long-chain alkyl(C5-C10) phenate	168		**RTECS No**						**CAS No**							
Calcium long chain alkyl (C11-C40) phenate (LOA)	2097	0	NI	0	NR	0	NI	0	0	(1)	1	1			Fp	2
Calcium long-chain alkyl(C11-C40) phenate	167		**RTECS No**						**CAS No**							
Calcium long chain alkyl phenate sulphide (C8-C40) (LOA)	1756	0	NI	0	NR	1	NI	0	0	(1)	1	1			Fp	2
Calcium long-chain alkyl phenate sulphide (C8-C40)	170		**RTECS No**						**CAS No**							
[OLOA 224]	1728	NI	NI	NI	NR	0	NI	0	0	(1)	1	(1)			Fp	2
Calcium long-chain alkyl phenolic amine (C8-C40)	171		**RTECS No**						**CAS No**							
Calcium alkyl (long chain) salicylate (overbased) in mineral oil (LOA)	70	0	NI	0	NR	2	NI	0	0	(1)	(1)	(1)	S		Fp	3
Calcium long-chain alkyl salicylate (C13+)	166		**RTECS No**						**CAS No**							
Calcium long-chain alkyl (C18-C28) salicylate	2383	0	NI	0	NR	0	NI	0	0	(1)	1	0	S		Fp	3
Calcium long-chain alkyl (C18-C28) salicylate	3426		**RTECS No**						**CAS No**							
Calcium nitrate/ Magnesium nitrate/Potassium chloride solution	1734	Inorg	0	0	Inorg	1	0	0	(0)	(1)	(1)	1			D	1
Calcium nitrate/Magnesium nitrate/Potassium chloride solution	173		**RTECS No**						**CAS No**							
Calcium nitrate	1803	Inorg	0	0	Inorg	0	NI	0	(0)	(1)	1	1			D	1

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Calcium nitrate solutions (50% or less)	172		**RTECS No**		EW2985000				**CAS No**		10124-37-5					
Camphor oil, white	1897	NI	NI	NI	NI	NI	NI	2	NI	(2)	1	NI		(T)	FE	2
Camphor oil	174		**RTECS No**		EX1490000				**CAS No**		8008-51-3					
Caprolactam	436	0	NI	0	R	1	0	1	1	4	1	2			D	3
epsilon-Caprolactam (molten or aqueous solutions)	310		**RTECS No**		CM3675000				**CAS No**		105-60-2					
Carbolic oil	437	(3)	3	(3)	(NR)	(3)	(1)	2	2	3	3	3	ATNCM		FED	3
Carbolic oil	176		**RTECS No**						**CAS No**							
Carbon disulphide	439	2	1	1	NR	3	NI	2	(3)	4	3A	3	RN		SD	3
Carbon disulphide	177		**RTECS No**		FF6650000				**CAS No**		75-15-0					
Tetrachloromethane	1296	2	2	2	NR	3	0	0	0	0	1	1	CT		S	3
Carbon tetrachloride	178		**RTECS No**		FG4900000				**CAS No**		56-23-5					
Cashew nut shell oil	443	0	NI	0	R	0	NI	(0)	(0)	(2)	2	(2)	S		Fp	3
Cashew nut shell oil (untreated)	179		**RTECS No**						**CAS No**							
Castor oil (containing less than 10% free fatty acids)	2314	0	NI	0	R	(2)	NI	0	0	(1)	1	1			Fp	2
Castor oil	3044		**RTECS No**						**CAS No**							
Cesium Formate, drilling brines	2384	0	3	3	Inorg	2	NI	1	0	(2)	2	2			D	2
Cesium formate solution drilling brines	3421		**RTECS No**						**CAS No**		3495-36-1					
Cetyl/Eicosyl methacrylate (mixture)	445	0	NI	0	(NR)	(0)	NI	0	(0)	(1)	(1)	(1)			Fp	2
Cetyl/Eicosyl methacrylate mixture	180		**RTECS No**						**CAS No**							
Chlorinated paraffins (C10-C13) with 60% chlorine or more	2021	5	5	5	NR	5	2	0	0	(1)	1	1	C		S	3
Chlorinated paraffins (C10-C13)	181		**RTECS No**						**CAS No**							
Chlorinated paraffins (C10- C13) with less than 60% chlorine	2020	5	5	5	NR	5	3	(0)	(0)	(1)	(1)	(1)	C		S	3
Chlorinated paraffins (C10-C13) (60% chlorine or less)	2832		**RTECS No**						**CAS No**							
Chlorinated paraffins (C14-C17) with less than 1% shorter chain length	2112	5	4	4	NR	6	3	0	0	(2)	2	2	C		S	3
Chlorinated paraffins (C14-C17) (with 50% chlorine or more, and less than 1% C13 or shorter chains)	182		**RTECS No**						**CAS No**							
Chlorinated paraffins (C18 and above) with any level of chlorine	2024	0	4	4	NR	0	2	0	0	(1)	(1)	(1)	C		S	3
Chlorinated paraffins (C18+) with any level of chlorine	183		**RTECS No**						**CAS No**							
Chloroacetic acid	450	0	NI	0	R	2	0	2	3	(4)	3C	3	A		D	3
Chloroacetic acid (80% or less)	184		**RTECS No**		AF8575000				**CAS No**		79-11-8					
Chlorobenzene	456	2	2	2	NR	3	0	1	0	2	2	0			S	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Chlorobenzene	185		**RTECS No**		CZ0175000				**CAS No**		108-90-7					
Trichloromethane	1328	1	1	1	NR	2	0	2	0	2	1	1	CT		SD	3
Chloroform	186		**RTECS No**		FS9100000				**CAS No**		67-66-3					
Chlorohydrins	463	0	NI	0	R	0	NI	(2)	(2)	(3)	(3A)	3	CS		D	3
Chlorohydrins (crude)	187		**RTECS No**		TY4025000				**CAS No**		96-24-2					
N-(3-Chloro-2-hydroxypropyl) trimethylammonium chloride solution (75% or less)	2286	0	0	0	NR	1	NI	0	0	(2)	0	(2)	SC		D	3
N-(3-Chloro-2-hydroxypropyl)trimethyl ammonium chloride solution (75% or less)	2579		**RTECS No**						**CAS No**							
MCPA-dimethylammonium (ISO)	1536	2	NI	2	NI	2	NI	1	0	2	1	1	S		S	2
4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution	62		**RTECS No**						**CAS No**							
Chloronitrobenzenes	467	2	2	2	NR	3	NI	2	2	2	1	1			S	2
o-Chloronitrobenzene	533		**RTECS No**		CZ0855000				**CAS No**		25167-93-5					
1-(4-Chlorophenyl)-4,4-dimethyl-3-pentanone	1772	3	3	3	NR	3	NI	0	0	(1)	1	0			S	1
1-(4-Chlorophenyl)-4,4- dimethyl-pentan-3-one	21		**RTECS No**						**CAS No**							
2-Chloropropionic acid	474	0	NI	0	R	1	NI	1	(3)	2	3A	3			D	3
2- or 3-Chloropropionic acid	36		**RTECS No**		UE8570000				**CAS No**		598-78-7					
Chlorosulphonic acid	479	Inorg	0	0	Inorg	2	NI	(2)	(3)	4	3C	3			D	3
Chlorosulphonic acid	188		**RTECS No**		FX5730000				**CAS No**		7790-94-5					
m-Chlorotoluene	481	3	NI	3	NR	2	NI	2	0	2	1	1			S	2
m-Chlorotoluene	426		**RTECS No**		XS8990000				**CAS No**		108-41-8					
o-Chlorotoluene	480	3	3	3	NR	3	1	2	0	2	1	1			S	2
o-Chlorotoluene	534		**RTECS No**		XS9000000				**CAS No**		95-49-8					
p-Chlorotoluene	482	3	3	3	NR	3	0	0	0	2	1	1			S	2
p-Chlorotoluene	551		**RTECS No**		XS9010000				**CAS No**		106-43-4					
o-Chlorotoluene	480	3	3	3	NR	3	1	2	0	2	1	1			S	2
Chlorotoluenes (mixed isomers)	189		**RTECS No**		XS9000000				**CAS No**		95-49-8					
Choline chloride, solutions	485	0	NI	0	R	1	NI	0	(0)	(0)	0	0			D	0
Choline chloride solutions	190		**RTECS No**		KH2975000				**CAS No**		67-48-1					
Citric acid	493	0	NI	0	R	1	0	0	(0)	(3)	1	3			D	3
Citric acid (70% or less)	748		**RTECS No**		GE7350000				**CAS No**		77-92-9					
Clay	495	Inorg	0	0	Inorg	0	0	0	0	0	0	0			S	0

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Clay slurry	191		**RTECS No**						**CAS No**							
Coal slurry	498	Inorg	0	0	Inorg	0	0	0	0	0	0	0			S	0
Coal slurry	192		**RTECS No**						**CAS No**							
Coal tar	499	(4)	4	4	NR	3	1	0	0	0	2	2	CMR	(T)	S	3
Coal tar	193		**RTECS No**		GF8600000				**CAS No**		8007-45-2					
Coal tar naphtha	500	3	NI	3	NR	3	NI	0	0	(1)	1	1	C	(T)	FE	3
Coal tar naphtha solvent	194		**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		S	3
Coal tar pitch (molten)	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		FE	3
Cobalt naphthenate in solvent naphtha	196		**RTECS No**						**CAS No**							
Cocoa butter	2342	0	NI	0	R	0	NI	(0)	(0)	(1)	(0)	(1)			Fp	2
Cocoa butter	3096		**RTECS No**						**CAS No**							
Coconut acid oil	2370	0	0	0	R	3	NI	(0)	(0)	(1)	(1)	(1)			Fp	2
Coconut acid oil	3139		**RTECS No**						**CAS No**							
Coconut fatty acid distillate	2366	0	NI	0	R	(3)	NI	0	(0)	(1)	(1)	(1)			Fp	2
Coconut fatty acid distillate	3130		**RTECS No**						**CAS No**							
Coconut oil	503	0	NI	0	R	1	NI	0	(0)	(1)	0	(1)			Fp	2
Coconut oil	2772		**RTECS No**		GG6040000				**CAS No**		8001-31-8					
Coconut oil fatty acid	505	0	0	0	(R)	(3)	NI	0	(0)	(1)	(1)	(1)			Fp	2
Coconut oil fatty acid	197		**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)			Fp	2
Coconut oil fatty acid methyl ester	198		**RTECS No**						**CAS No**		61788-59-8					
Copper salt of long chain(>C17) alkanoic acid (LOA)	2111	0	NI	0	(R)	2	NI	0	0	(0)	0	0			Fp	2
Copper salt of long chain (C17+) alkanoic acid	2214		**RTECS No**						**CAS No**							
Corn oil	521	0	NI	0	R	(2)	NI	0	(0)	(1)	1	1			Fp	2
Corn Oil	2781		**RTECS No**		GM4800000				**CAS No**		8001-30-7					
Cotton seed oil	523	0	NI	0	R	(2)	NI	(0)	(0)	(1)	0	1			Fp	2
Cotton seed oil	2783		**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

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Creosote (coal tar)	199		**RTECS No**		GF8615000				**CAS No**		8001-58-9					
Creosote (wood tar)	525	NI	NI	NI	NR	5	NI	1	0	2	2	1	CM	(T)	SD	3
Creosote (wood)	200		**RTECS No**		GO5870000				**CAS No**		8021-39-4					
Cresols (mixed isomers)	527	2	2	2	R	3	0	2	2	(3)	3A	3		T	SD	3
Cresols (all isomers)	201		**RTECS No**		GO5950000				**CAS No**		1319-77-3					
Cresylic acids, dephenolized	1875	2	2	2	R	3	0	(2)	(2)	(3)	(3A)	(3)		(T)	S	3
Cresylic acid, dephenolized	202		**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
Cresylic acid, sodium salt solution	203		**RTECS No**						**CAS No**							
Crotonaldehyde	528	0	NI	0	NR	4	1	2	4	4	2	3	S		D	3
Crotonaldehyde	204		**RTECS No**		GP9499000				**CAS No**		4170-30-3					
alpha-Methylbenzyl alcohol with acetophenone (15% or less)	2399	1	NI	1	(R)	(1)	NI	(1)	(0)	(3)	(2)	(3)	R		Fp	3
Crude alpha-Methylbenzyl alcohol	3634		**RTECS No**						**CAS No**		98-85-1					
Crude Piperazine	2331	0	NI	0	R	2	NI	(1)	(2)	(3)	3	3	S		D	3
Crude Piperazine	2810		**RTECS No**						**CAS No**							
1,5,9-Cyclododecatriene	534	5	5	5	NR	4	NI	0	0	2	2	2	SA		F	3
1,5,9-Cyclododecatriene	17		**RTECS No**		GU2308000				**CAS No**		4904-61-4					
Cycloheptane	535	4	NI	4	(NR)	4	NI	(0)	0	(1)	(0)	(1)			FE	2
Cycloheptane	205		**RTECS No**		GU3140000				**CAS No**		291-64-5					
Cyclohexane	536	3	3	3	NR	3	NI	0	0	1	0	1			E	2
Cyclohexane	206		**RTECS No**		GU6300000				**CAS No**		110-82-7					
Cyclohexanol	537	1	NI	1	R	2	NI	0	0	0	2	2			Fp	2
Cyclohexanol	207		**RTECS No**		GV7875000				**CAS No**		108-93-0					
Cyclohexanone	539	0	1	1	R	1	0	1	1	1	2	2			FE	2
Cyclohexanone	208		**RTECS No**		GW1050000				**CAS No**		108-94-1					
Cyclohexanone/Cyclohexanol mixture	1436	1	1	1	R	2	NI	1	1	1	2	2			FED	2
Cyclohexanone, Cyclohexanol mixture	209		**RTECS No**						**CAS No**							
Cyclohexyl acetate	541	2	NI	2	(R)	(2)	NI	0	0	(2)	2	1			FED	2
Cyclohexyl acetate	210		**RTECS No**		AG5075000				**CAS No**		622-45-7					
Cyclohexylamine	542	1	NI	1	R	2	NI	2	2	3	3	3	S		D	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Cyclohexylamine	211		**RTECS No**		GX0700000				**CAS No**		108-91-8					
1,3-Cyclopentadiene dimer (molten)	545	3	3	3	NR	3	NI	2	0	3	2	2			Fp	2
1,3-Cyclopentadiene dimer (molten)	11		**RTECS No**		PC1050000				**CAS No**		77-73-6					
Cyclopentane	546	3	NI	3	NR	3	NI	(0)	(0)	0	1	(1)			E	2
Cyclopentane	212		**RTECS No**		GY2390000				**CAS No**		287-92-3					
Cyclopentene	547	2	NI	2	NI	3	NI	1	1	0	NI	NI			E	2
Cyclopentene	213		**RTECS No**		GY5950000				**CAS No**		142-29-0					
Isopropyltoluenes	549	4	4	4	(NR)	3	NI	0	(0)	1	2	(1)			FE	2
p-Cymene	552		**RTECS No**		GZ5950000				**CAS No**		99-87-6					
Decahydronaphthalene	551	4	4	4	NR	3	NI	0	0	(1)	1	1			F	1
Decahydronaphthalene	214		**RTECS No**		QJ3150000				**CAS No**		91-17-8					
Decane	554	5	NI	5	R	0	0	0	0	0	1	0			F	1
Decane	2620		**RTECS No**		HD6550000				**CAS No**		124-18-5					
Decanoic acid	555	4	NI	4	R	4	1	0	0	(2)	2	2			Fp	2
Decanoic acid	215		**RTECS No**		HD9100000				**CAS No**		334-48-5					
1-Decene	558	5	NI	5	R	4	2	0	0	0	2	0	A		F	3
Decene	216		**RTECS No**						**CAS No**		872-05-9					
Decyl acetate	1767	4	NI	4	NI	NI	NI	0	0	(1)	(1)	(1)			F	1
Decyl acetate	217		**RTECS No**						**CAS No**		112-17-4					
Decyl acrylate	559	5	NI	5	NI	5	NI	0	0	(2)	2	1			Fp	2
Decyl acrylate	218		**RTECS No**		AS7400000				**CAS No**		2156-96-9					
Isodecanol	557	3	2	2	R	3	NI	0	0	0	2	1			Fp	2
Decyl alcohol (all isomers)	219		**RTECS No**		NR0960000				**CAS No**		25339-17-7					
Alcohols, linear (C10-C14)	2365	(5)	(2)	(2)	(R)	(4)	(1)	0	0	(2)	(2)	(2)			Fp	2
Decyl/Dodecyl/Tetradecyl alcohol mixture	3128		**RTECS No**						**CAS No**							
Decyloxytetrahydrothiophene dioxide	1859	3	NI	3	NR	4	NI	0	0	(1)	1	0			Fp	2
Decyloxytetrahydrothiophene dioxide	220		**RTECS No**						**CAS No**							
Dextrose solution	562	0	0	0	R	0	NI	0	0	0	0	(0)			D	0
Dextrose solution	221		**RTECS No**		LZ6600000				**CAS No**		50-99-7					
Diacetone alcohol	563	0	NI	0	R	1	0	0	0	(2)	2	2			D	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Diacetone alcohol	226		**RTECS No**		SA9100000				**CAS No**		123-42-2					
Dialkyldiphenylamines (LOA)	1852	5	NI	5	NR	1	0	0	0	(0)	0	0			FD	0
Dialkyl (C8-C9) diphenylamines	2255		**RTECS No**						**CAS No**							
Dialkyl phthalates C9-C13	566	(0)	(4)	(4)	(NR)	(0)	(2)	(0)	(0)	(1)	(1)	(1)	R		Fp	3
Dialkyl (C7-C13) phthalates	227		**RTECS No**						**CAS No**							
Dialkyl (C9 - C10) phthalates	2359	(0)	(0)	(0)	(R)	(0)	(0)	(0)	(0)	(1)	(1)	(1)			Fp	2
Dialkyl (C9 - C10) phthalates	3121		**RTECS No**						**CAS No**							
[AERO 7249 Promoter / Mixture of dithiophosphate salts in water.]	2381	1	0	1	NR	2	NI	0	0	(2)	2	2			D	2
Dialkyl thiophosphates sodium salts solution	3424		**RTECS No**						**CAS No**							
Dibromomethane	574	1	NI	1	NR	(2)	NI	1	0	0	NI	NI			SD	1
Dibromomethane	228		**RTECS No**		PA7350000				**CAS No**		74-95-3					
Di-n-butylamine	577	2	NI	2	R	3	NI	2	2	3	3	3			FD	3
Dibutylamine	231		**RTECS No**		HR7780000				**CAS No**		111-92-2					
Dibutyl hydrogen phosphonate	1857	1	NI	1	NI	2	NI	0	0	(3)	3	3			F	3
Dibutyl hydrogen phosphonate	229		**RTECS No**						**CAS No**		1809-19-4					
2,4-Di-tert-butyl phenol	2083	5	4	4	NR	4	NI	NI	NI	NI	NI	NI			NI	NI
2,4-Di-tert-butylphenol	2339		**RTECS No**		SK8260000				**CAS No**		96-76-4					
2,6-Di-tert-butyl phenol	2082	4	NI	4	NR	4	NI	0	0	(1)	1	1			Fp	2
2,6-Di-tert-butylphenol	2250		**RTECS No**		SK8265000				**CAS No**		128-39-2					
Di-n-butyl phthalate	582	4	4	4	R	4	1	0	0	1	0	1	R		S	3
Dibutyl phthalate	230		**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
Dichlorobenzene (all isomers)	232		**RTECS No**						**CAS No**							
3,4-Dichlorobut-1-ene	2079	2	2	2	NR	3	NI	1	0	2	2	3			S	3
3,4-Dichloro-1-butene	56		**RTECS No**		EM4740000				**CAS No**		760-23-6					
1,1-Dichloroethane	590	1	NI	1	NR	1	NI	1	(1)	0	2	2			SD	2
1,1-Dichloroethane	4		**RTECS No**		KI0175000				**CAS No**		75-34-3					
sym-Dichlorodiethyl ether	588	1	1	1	NR	1	0	2	3	4	1	3	M	T	SD	3
Dichloroethyl ether	233		**RTECS No**		KN0875000				**CAS No**		111-44-4					
1,6-Dichlorohexane	593	3	NI	3	NR	3	NI	0	(0)	(0)	0	0			S	0

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
1,6-Dichlorohexane	19		**RTECS No**						**CAS No**		2163-00-0					
Di-(2-chloro-iso-propyl) ether	615	2	2	2	NR	2	NI	2	0	2	0	2			SD	2
2,2'-Dichloroisopropyl ether	25		**RTECS No**		KN1750000				**CAS No**		108-60-1					
Dichloromethane	594	1	2	2	NR	1	0	1	0	0	2	2	C		SD	3
Dichloromethane	234		**RTECS No**		PA8050000				**CAS No**		75-09-2					
2,4-Dichlorophenol	596	3	2	2	R	3	2	3	2	3	3	3		T	S	3
2,4-Dichlorophenol	30		**RTECS No**		SK8575000				**CAS No**		120-83-2					
2,4-Dichlorophenoxyacetic acid, diethanolamine salt, solution	599	0	1	1	R	3	NI	1	0	(3)	1	3		(T)	D	3
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution	32		**RTECS No**						**CAS No**							
2,4-Dichlorophenoxyacetic acid, dimethylamine salt, 70 % or less solution	600	0	1	1	R	3	NI	1	0	(3)	1	3		(T)	D	3
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution (70% or less)	33		**RTECS No**						**CAS No**							
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt soln.	602	0	NI	0	R	2	NI	1	0	(3)	(1)	3		(T)	D	3
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution	34		**RTECS No**						**CAS No**							
1,1-Dichloropropane	605	2	1	1	NR	2	1	0	0	1	1	1			SD	1
1,1-Dichloropropane	5		**RTECS No**		TX9450000				**CAS No**		78-99-9					
1,2-Dichloropropane	606	2	1	1	NR	2	1	1	0	2	2	2			SD	2
1,2-Dichloropropane	9		**RTECS No**		TX9625000				**CAS No**		78-87-5					
1,3-Dichloropropane	607	2	1	1	NR	2	1	0	NI	NI	NI	NI			SD	NI
1,3-Dichloropropane	12		**RTECS No**		TX9660000				**CAS No**		142-28-9					
1,3-Dichloropropene	612	1	NI	1	NR	4	1	2	1	2	3	3	CS		SD	3
1,3-Dichloropropene	13		**RTECS No**		UC8310000				**CAS No**		542-75-6					
Dichloropropane and dichloropropene, mixture	608	2	1	1	NR	4	1	2	1	2	3	3	CS		SD	3
Dichloropropene/Dichloropropane mixtures	235		**RTECS No**		TX9800000				**CAS No**		8003-19-8					
2,2-Dichloropropionic acid	609	2	2	2	NR	2	NI	1	0	(3)	3	3			D	3
2,2-Dichloropropionic acid	28		**RTECS No**		UF0690000				**CAS No**		75-99-0					
Dicyclopentadiene(80-90%)/Co-dimers(10-20%), mixtures	2389	2	3	3	NR	3	0	2	0	3	2	2	AR		FED	3
Dicyclopentadiene, Resin Grade, 81-89%	3559		**RTECS No**						**CAS No**							
Diethanolamine	620	0	NI	0	R	1	0	1	0	0	2	3	T		D	3
Diethanolamine	236		**RTECS No**		KL2975000				**CAS No**		111-42-2					
Diethylamine	621	0	NI	0	R	2	NI	1	2	3	3C	3			DE	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Diethylamine	240		**RTECS No**		HZ8750000				**CAS No**		109-89-7					
Diethyl ethanolamine	622	0	NI	0	NR	3	NI	1	1	2	3	3			D	3
Diethylaminoethanol	241		**RTECS No**		KK5075000				**CAS No**		100-37-8					
2,6-Diethylaniline	1437	3	3	3	NR	2	NI	1	1	(2)	1	2			FD	2
2,6-Diethylaniline	35		**RTECS No**		BX3500000				**CAS No**		579-66-8					
Diethyl benzene (mixed isomers)	624	4	4	4	NR	3	NI	0	(0)	(2)	2	1			F	2
Diethylbenzene	242		**RTECS No**		CZ5600000				**CAS No**		25340-17-4					
Di-(2-ethylbutyl) phthalate	625	5	NI	5	R	0	2	0	0	(1)	1	1	R		Fp	3
Di-(2-ethylbutyl) phthalate	2750		**RTECS No**		TI1100000				**CAS No**		84-75-3					
Diethylene glycol	628	0	NI	0	R	0	0	1	0	2	1	1			D	2
Diethylene glycol	243		**RTECS No**		ID5950000				**CAS No**		111-46-6					
Diethylene glycol di-n-butyl ether	629	2	NI	2	NI	1	NI	0	0	(1)	1	1			FD	1
Diethylene glycol dibutyl ether	244		**RTECS No**		KN0350000				**CAS No**		112-73-2					
Diethylene glycol diethyl ether	630	0	NI	0	NR	0	NI	1	0	(2)	(2)	2			D	2
Diethylene glycol diethyl ether	245		**RTECS No**		KN3160000				**CAS No**		112-36-7					
Diethylene glycol initiated polyoxypropylene diamine	2353	0	NI	0	NR	2	NI	0	0	(3)	3B	(3)			D	3
Diethylene glycol initiated polyoxypropylene diamine	3113		**RTECS No**						**CAS No**							
Diethylene glycol phthalate	1438	2	NI	2	NR	1	NI	0	0	(2)	(1)	2			S	2
Diethylene glycol phthalate	247		**RTECS No**						**CAS No**							
Diethylene triamine	638	0	1	1	(R)	2	NI	1	3	3	3A	3	S		FD	3
Diethylenetriamine	248		**RTECS No**		IE1225000				**CAS No**		111-40-0					
Diethylenetriamine pentaacetic acid, pentasodium salt (40% solution in water)	2076	0	NI	0	NR	0	NI	0	(0)	(0)	0	0			D	0
Diethylenetriaminepentaacetic acid, pentasodium salt solution	249		**RTECS No**						**CAS No**							
Diethyl ether	640	0	1	1	NR	0	NI	1	0	0	1	1			DE	2
Diethyl ether	237		**RTECS No**		KI5775000				**CAS No**		60-29-7					
Di-(2-ethylhexyl) adipate	641	0	2	2	R	4	2	0	0	0	1	1	R		Fp	3
Di-(2-ethylhexyl) adipate	222		**RTECS No**		AU9700000				**CAS No**		103-23-1					
Di-(2-ethylhexyl) phosphoric acid	643	(2)	1	1	NR	2	NI	0	1	(2)	2	2			Fp	2
Di-(2-ethylhexyl) phosphoric acid	223		**RTECS No**		TB7875000				**CAS No**		298-07-7					
Di-(2-ethylhexyl) phthalate	642	0	4	4	R	0	0	0	0	1	1	1	R		Fp	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Di-(2-ethylhexyl) phthalate	2751		RTECS No		TI0350000				CAS No		117-81-7					
Diethyl phthalate	648	3	3	3	R	2	0	0	0	(1)	1	1			S	1
Diethyl phthalate	238		RTECS No		TI1050000				CAS No		84-66-2					
Diethyl sulphate	649	1	NI	1	(NR)	(2)	NI	1	2	3	2	3	CM		SD	3
Diethyl sulphate	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		S	2
Diglycidyl ether of bisphenol A	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		S	3
Diglycidyl ether of bisphenol F	251		RTECS No						CAS No		55492-52-9					
Diheptyl phthalate	655	0	(4)	(4)	R	0	NI	0	0	(1)	1	1	R		Fp	3
Diheptyl phthalate	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			FE	1
Di-n-hexyl adipate	224		RTECS No		AV1150000				CAS No		110-33-8					
Di-hexyl phthalate	2125	5	NI	5	R	0	2	0	0	(1)	1	1	R		Fp	3
Dihexyl phthalate	253		RTECS No		TI1100000				CAS No		84-75-3					
1,4-Dihydro-9,10-dihydroxy anthracene disodium salt (soln.)	657	1	NI	1	NI	1	NI	0	NI	NI	NI	NI			D	NI
1,4-Dihydro-9,10-dihydroxyanthracene, disodium salt solution	15		RTECS No						CAS No							
Diisobutylamine	576	2	NI	2	R	3	NI	2	(2)	2	(3)	(3)			FED	3
Diisobutylamine	256		RTECS No		TX1750000				CAS No		110-96-3					
Diisobutene	575	4	4	4	NR	3	NI	0	0	0	1	0			FE	2
Diisobutylene	257		RTECS No		SB2715000				CAS No		11071-47-9					
Diisobutyl ketone	579	3	NI	3	R	2	NI	0	0	2	2	2			F	2
Diisobutyl ketone	254		RTECS No		MJ5775000				CAS No		108-83-8					
Diisobutyl phthalate	581	4	(4)	4	R	4	1	0	0	1	0	0	R		S	3
Diisobutyl phthalate	255		RTECS No		TI1225000				CAS No		84-69-5					
Diisodecyl phthalate	619	0	0	0	(R)	0	(0)	0	0	(1)	0	1			Fp	2
Diisodecyl phthalate	3119		RTECS No		TI1270000				CAS No		26761-40-0					
Diisoheptyl phthalate	2391	0	(4)	(4)	R	0	0	0	0	(1)	1	1	R		Fp	3
Diisoheptyl phthalate	3561		RTECS No						CAS No							
Diisononyl adipate	690	0	NI	0	R	0	0	0	0	(1)	1	1			Fp	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Diisononyl adipate	258		**RTECS No**						**CAS No**		33703-08-1					
Diisononyl phthalate	691	0	0	0	R	0	0	0	0	(0)	0	0			Fp	2
Diisononyl phthalate	3120		**RTECS No**						**CAS No**							
Diisooctyl phthalate	693	0	4	4	(R)	0	0	0	0	(1)	1	0			Fp	2
Diisooctyl phthalate	259		**RTECS No**		TI1300000				**CAS No**		27554-26-3					
Diisopropanolamine	703	0	NI	0	NR	1	NI	0	0	0	2	3			FD	3
Diisopropanolamine	260		**RTECS No**		UB6600000				**CAS No**		110-97-4					
Diisopropylamine	705	1	NI	1	NR	2	0	1	1	2	3	3			ED	3
Diisopropylamine	261		**RTECS No**		IM4025000				**CAS No**		108-18-9					
Diisopropyl benzene (mixed isomers)	2220	5	4	4	NR	4	NI	0	0	2	2	1		(T)	F	2
Diisopropylbenzene (all isomers)	262		**RTECS No**						**CAS No**							
1,3-Diisopropylbenzene	706	5	4	4	NR	4	NI	0	0	2	2	1			F	2
1,3-Diisopropyl benzene	2626		**RTECS No**		CZ6330000				**CAS No**		25321-09-9					
Diisopropylnaphthalene, mixed isomers	712	5	4	4	NR	(3)	NI	0	0	(1)	1	1			Fp	2
Diisopropylnaphthalene	263		**RTECS No**		QJ1527000				**CAS No**		38640-62-9					
Dimethyl acetamide	658	0	NI	0	R	1	NI	0	0	2	1	2			D	2
N,N-Dimethylacetamide	2730		**RTECS No**		AB7700000				**CAS No**		127-19-5					
Dimethyl acetamide	658	0	NI	0	R	1	NI	0	0	2	1	2			D	2
N,N-Dimethylacetamide solution (40% or less)	466		**RTECS No**		AB7700000				**CAS No**		127-19-5					
Dimethyl adipate	659	1	NI	1	NR	4	NI	0	0	2	1	1			SD	2
Dimethyl adipate	264		**RTECS No**		AV1645000				**CAS No**		627-93-0					
Dimethylamine (40-50% aq.sol.)	661	0	NI	0	R	3	0	2	0	2	3B	3	S	NT	DE	3
Dimethylamine solution (45% or less)	270		**RTECS No**		IP8750000				**CAS No**		124-40-3					
Dimethylamine (40-50% aq.sol.)	661	0	NI	0	R	3	0	2	0	2	3B	3	S	NT	DE	3
Dimethylamine solution (greater than 45% but not greater than 55%)	271		**RTECS No**		IP8750000				**CAS No**		124-40-3					
Dimethylamine (40-50% aq.sol.)	661	0	NI	0	R	3	0	2	0	2	3B	3	S	NT	DE	3
Dimethylamine solution (greater than 55% but not greater than 65%)	272		**RTECS No**		IP8750000				**CAS No**		124-40-3					
N,N-Dimethyl cyclohexylamine	665	2	NI	2	NR	2	NI	1	2	3	3C	3			FD	3
N,N-Dimethylcyclohexylamine	467		**RTECS No**		GX1198000				**CAS No**		98-94-2					
Dimethyl disulphide	1616	1	NI	1	NR	3	2	2	0	2	1	1			SD	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Dimethyl disulphide	2504		**RTECS No**		JO1927500				**CAS No**		624-92-0					
N,N-Dimethyldodecylamine	2126	3	NI	3	R	4	NI	1	(1)	(3)	3	3			F	3
N,N-Dimethyldodecylamine	468		**RTECS No**		JR6600000				**CAS No**		112-18-5					
Dimethylethanolamine	667	0	NI	0	R	2	NI	1	1	2	3	3			D	3
Dimethylethanolamine	273		**RTECS No**		KK6125000				**CAS No**		108-01-0					
Dimethyl formamide	676	0	0	0	R	1	0	0	1	2	1	2	R		D	3
Dimethylformamide	274		**RTECS No**		LQ2100000				**CAS No**		68-12-2					
Dimethyl glutarate	670	0	NI	0	R	3	NI	0	0	2	3	2	A		SD	3
Dimethyl glutarate	265		**RTECS No**						**CAS No**		26717-67-9					
Dimethyl hydrogen phosphite	673	0	NI	0	NR	2	NI	1	0	0	1	1			D	1
Dimethyl hydrogen phosphite	266		**RTECS No**		SZ7710000				**CAS No**		868-89-9					
2,2-Dimethyloctanoic acid	675	3	NI	3	R	4	1	0	0	(2)	2	2			Fp	2
Dimethyl octanoic acid	267		**RTECS No**						**CAS No**		29662-90-6					
Dimethyl phthalate	678	2	2	2	R	2	0	0	0	(1)	0	1			SD	1
Dimethyl phthalate	268		**RTECS No**		TI1575000				**CAS No**		131-11-3					
Polysiloxane	1161	NI	4	4	NI	2	NI	0	(0)	(0)	0	0			F	1
Dimethylpolysiloxane	275		**RTECS No**						**CAS No**							
2,2-Dimethylpropane-1,3-diol	679	0	0	0	NR	0	0	0	0	0	2	2			FD	2
2,2-Dimethylpropane-1,3-diol (molten or solution)	29		**RTECS No**		TY5775000				**CAS No**		126-30-7					
Dimethyl succinate	681	0	NI	0	NI	2	NI	0	0	0	0	2			SD	2
Dimethyl succinate	269		**RTECS No**		WM7675000				**CAS No**		106-65-0					
Dinitrotoluene	688	2	2	2	NR	4	2	2	(2)	(2)	1	0	CMR		S	3
Dinitrotoluene (molten)	276		**RTECS No**		XT1300000				**CAS No**		25321-14-6					
Dinonyl phthalate	689	0	NI	0	R	0	0	0	0	(1)	1	1			Fp	2
Dinonyl phthalate	2993		**RTECS No**		TI1800000				**CAS No**		84-76-4					
Di-n-octyl phthalate	692	0	(4)	(4)	(R)	0	0	0	0	(1)	1	(1)			Fp	2
Dioctyl phthalate	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		D	3
1,4-Dioxane	16		**RTECS No**		JG8225000				**CAS No**		123-91-1					
Dipentene	686	4	NI	4	NR	2	NI	0	0	(2)	2	2	S		F	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Dipentene	278		RTECS No		OS8100000				CAS No		138-86-3					
Diphenyl	694	3	4	4	R	4	1	0	0	(2)	2	1			S	2
Diphenyl	279		RTECS No		DU8050000				CAS No		92-52-4					
Diphenylamine (molten)	2186	3	3	3	NR	3	1	0	0	(1)	1	1			S	1
Diphenylamine (molten)	285		RTECS No						CAS No							
Diphenylamine, reaction product with 2,4,4-trimethylpentene	1500	NI	1	1	NR	3	NI	0	0	(1)	1	1	S		Fp	3
Diphenylamine, reaction product with 2,2,4-Trimethylpentene	286		RTECS No						CAS No							
Diphenylamines, alkylated	1770	5	NI	5	NR	(3)	NI	0	0	(1)	(1)	(1)	S		F	3
Diphenylamines, alkylated	287		RTECS No						CAS No							
Diphenyl/Diphenyl ether (mixtures)	698	NI	NI	4	NR	4	1	0	0	(1)	1	1		(T)	S	1
Diphenyl/Diphenyl ether mixtures	283		RTECS No		DV1500000				CAS No		8004-13-5					
Diphenyl ether	699	4	4	4	NR	4	NI	0	0	0	1	1		T	S	1
Diphenyl ether	281		RTECS No		KN8970000				CAS No		101-84-8					
Diphenyl ether/ Biphenyl phenyl ether mixtures	702	5	NI	5	NR	4	NI	0	0	0	1	1		(T)	S	1
Diphenyl ether/Diphenyl phenyl ether mixture	282		RTECS No						CAS No							
Diphenylmethane-4,4'-diisocyanate	700	5	2	2	NR	0	0	0	0	4	2	2	S		S	3
Diphenylmethane diisocyanate	288		RTECS No		NQ9350000				CAS No		101-68-8					
Diphenylol propane-epichlorohydrin resins	2237	3	NI	3	NR	4	NI	0	0	(2)	1	2			S	2
Diphenylol propane-epichlorohydrin resins	290		RTECS No						CAS No							
Di-n-propylamine	704	1	NI	1	NR	3	NI	2	2	2	3C	3			FED	3
Di-n-propylamine	225		RTECS No		JL9200000				CAS No		142-84-7					
Dipropylene glycol	707	0	1	1	NR	0	NI	0	0	0	1	1			D	1
Dipropylene glycol	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
Dipropylene glycol dibenzoate	2431		RTECS No		UB8787500				CAS No		94-51-9					
Di-n-propyl phthalate	713	3	NI	3	(R)	3	NI	0	0	(1)	1	1	R		S	3
Di-n-propyl phthalate	2752		RTECS No		TI1940000				CAS No		131-16-8					
Dithocarbamate ester (C7-C35)	2185	NI	2	2	NR	4	NI	0	0	(1)	1	1			S	1
Dithiocarbamate ester (C7-C35)	2371		RTECS No						CAS No							
Ditridecyl adipate	2351	0	NI	0	NR	0	NI	0	0	(2)	2	1	S		Fp	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Ditridecyl adipate	293		**RTECS No**						**CAS No**							
Ditridecyl phthalate	714	0	(0)	0	NR	0	(0)	0	0	(1)	1	(1)			Fp	2
Ditridecyl phthalate	2994		**RTECS No**		TI1950000				**CAS No**		119-06-2					
Diundecyl phthalate	715	0	(0)	0	NR	0	0	0	0	(1)	1	1			Fp	2
Diundecyl phthalate	294		**RTECS No**		TI1980000				**CAS No**		3648-20-2					
Dodecane	718	5	NI	5	(R)	0	NI	0	0	(1)	(1)	(0)			Fp	2
Dodecane (all isomers)	295		**RTECS No**		JR2125000				**CAS No**		112-40-3					
tert-Dodecanethiol	2233	5	NI	5	NR	4	2	0	0	(2)	2	1	S		F	3
tert-Dodecanethiol	2418		**RTECS No**						**CAS No**							
Dodecene (all isomers)	720	5	NI	5	NR	4	NI	0	0	(2)	2	1	A		F	3
Dodecene (all isomers)	296		**RTECS No**		UD1950000				**CAS No**		6842-15-5					
2-Dodecenyl succinic acid, dipotassium salt, solution	727	4	NI	4	NR	1	NI	(0)	(0)	NI	NI	NI			D	NI
Dodecenylsuccinic acid, dipotassium salt solution	297		**RTECS No**						**CAS No**		57195-28-5					
1-Dodecanol	719	5	2	2	R	4	1	0	0	(1)	1	(1)			Fp	2
Dodecyl alcohol	298		**RTECS No**		JR5775000				**CAS No**		112-53-8					
Dodecylamine/Tetradecylamine mixture	721	3	NI	3	R	4	NI	1	0	(3)	3	3			F	3
Dodecylamine/Tetradecylamine mixture	303		**RTECS No**						**CAS No**							
Dodecyl benzene	126	0	NI	0	NR	0	3	0	0	(2)	(2)	(1)			F	2
Dodecylbenzene	304		**RTECS No**		CZ9540000				**CAS No**		123-01-3					
Dodecyl diphenyl oxide disulphonate (solns.)	723	(5)	NI	5	NR	4	1	1	0	(3)	1	3			D	3
Dodecyl diphenyl ether disulphonate solution	299		**RTECS No**		JR8050000				**CAS No**							
Dodecyl hydroxypropyl sulphide (LOA)	1861	5	NI	5	NI	4	NI	0	0	(0)	0	0			FD	0
Dodecyl hydroxypropyl sulphide	2252		**RTECS No**						**CAS No**							
Lauryl methacrylate	893	5	NI	5	NR	0	NI	0	(0)	(1)	1	1			F	1
Dodecyl methacrylate	300		**RTECS No**		OZ4300000				**CAS No**		142-90-5					
Dodecyl/octadecyl methacrylate (mixtures)	2116	(5)	NI	(5)	(NR)	(0)	NI	0	0	(1)	1	(1)			Fp	2
Dodecyl/Octadecyl methacrylate mixture	1717		**RTECS No**						**CAS No**							
Dodecyl/pentadecyl methacrylate (mixture)	724	(5)	NI	(5)	(NR)	(0)	NI	0	(0)	(1)	(1)	(1)			Fp	2
Dodecyl/Pentadecyl methacrylate mixture	302		**RTECS No**						**CAS No**							
Dodecyl phenol	725	0	4	4	NI	4	NI	0	0	(3)	3	2			Fp	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Dodecyl phenol	301		**RTECS No**		SL3675000				**CAS No**		27193-86-8					
Dodecylxylene	1763	0	NI	0	NI	0	NI	0	0	(1)	1	1			Fp	2
Dodecyl Xylene	306		**RTECS No**						**CAS No**							
Zinc chloride	1425	Inorg	4	4	Inorg	4	1	(1)	(1)	(3)	(3)	(3)			D	3
Drilling brines (containing zinc salts)	307		**RTECS No**		ZH1400000				**CAS No**		7646-85-7					
Calcium bromide (solutions)	427	Inorg	0	0	Inorg	1	0	(0)	(0)	(2)	(1)	(2)			D	2
Drilling brines, including:calcium bromide solution, calcium chloride solution and sodium chloride solution	308		**RTECS No**		EV9328000				**CAS No**		7789-41-5					
Epichlorohydrin	731	0	NI	0	R	3	1	2	2	3	3A	3	CS		D	3
Epichlorohydrin	309		**RTECS No**		TX4900000				**CAS No**		106-89-8					
Ethanolamine	733	0	NI	0	R	2	0	1	1	3	3A	3			D	3
Ethanolamine	311		**RTECS No**		KJ5775000				**CAS No**		141-43-5					
Ethylene glycol monoethyl ether	766	0	NI	0	R	0	0	0	0	1	2	2	R		NI	3
2-Ethoxyethanol	40		**RTECS No**		KK8050000				**CAS No**		110-80-5					
Ethylene glycol ethyl ether acetate	767	0	NI	0	R	2	0	1	0	1	1	2	R		D	3
2-Ethoxyethyl acetate	41		**RTECS No**		KK8225000				**CAS No**		111-15-9					
Ethoxylated long chain (>C16)alkyloxyalkanamine (LOA)	2103	5	NI	5	NR	1	NI	0	0	(3)	3	(3)			Fp	3
Ethoxylated long chain (C16+) alkyloxyalkylamine	2203		**RTECS No**						**CAS No**							
Ethoxylated tallow amine (>95%)	2313	0	NI	0	NR	4	NI	1	(1)	3	2	3	S		Fp	3
Ethoxylated tallow amine (> 95%)	2959		**RTECS No**						**CAS No**							
Ethoxylated tallow amine, glycol mixture	2252	2	NI	2	NR	6	NI	1	0	3	2	3	S		D	3
Ethoxylated tallow amine, glycol mixture	2476		**RTECS No**						**CAS No**							
Ethyl acetate	735	0	2	2	R	1	0	0	0	1	0	1			DE	2
Ethyl acetate	312		**RTECS No**		AH5425000				**CAS No**		141-78-6					
Ethyl acetoacetate	736	0	0	0	R	1	NI	0	0	(1)	1	1			D	1
Ethyl acetoacetate	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
Ethyl acrylate	314		**RTECS No**		AT0700000				**CAS No**		140-88-5					
Ethanol	732	0	NI	0	R	0	NI	0	0	0	1	2			D	2
Ethyl alcohol	315		**RTECS No**		KQ6300000				**CAS No**		64-17-5					
Ethylamine	1016	0	NI	0	R	2	NI	2	2	1	3	3			GD	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Ethylamine	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			DE	3
Ethylamine solutions (72% or less)	323		**RTECS No**						**CAS No**							
Ethyl amyl ketone	1784	2	NI	2	NI	2	NI	0	0	(2)	2	NI			FD	2
Ethyl amyl ketone	316		**RTECS No**		RH1485000				**CAS No**		106-68-3					
Ethylbenzene	740	3	2	2	R	3	1	0	0	0	2	2	C		FE	3
Ethylbenzene	324		**RTECS No**		DA070000				**CAS No**		100-41-4					
N-Ethyl butylamine	745	1	NI	1	NI	NI	NI	1	1	2	3	3			FED	3
N-Ethylbutylamine	477		**RTECS No**		EO4880000				**CAS No**		13360-63-9					
Ethyl tert-butyl ether	2085	1	NI	1	NI	2	NI	0	0	2	2	2			E	2
Ethyl tert-butyl ether	320		**RTECS No**		KN4730200				**CAS No**		637-92-3					
Ethyl butyrate	748	1	NI	1	NI	2	NI	0	0	(2)	2	NI			FED	2
Ethyl butyrate	317		**RTECS No**		ET1660000				**CAS No**		105-54-4					
Ethyl cyclohexane	751	4	4	4	NR	3	NI	(0)	(0)	(1)	(0)	(1)			FE	2
Ethylcyclohexane	325		**RTECS No**		GV1140000				**CAS No**		1678-91-7					
N-Ethyl cyclohexylamine	752	2	NI	2	NI	(3)	NI	1	2	2	3	3			FED	3
N-Ethylcyclohexylamine	478		**RTECS No**		GX1225000				**CAS No**		5459-93-8					
EPTC (ISO)	2081	3	2	2	NI	3	NI	1	1	2	2	(2)	N		F	3
S-Ethyl dipropylthiocarbamate	2302		**RTECS No**						**CAS No**		759-94-4					
Ethylene carbonate	755	0	NI	0	R	0	NI	0	0	(2)	1	2			SD	2
Ethylene carbonate	326		**RTECS No**		FF9550000				**CAS No**		96-49-1					
Ethylene chlorohydrin	756	0	0	0	R	3	NI	2	3	4	2	3			D	3
Ethylene chlorohydrin	327		**RTECS No**		KK0875000				**CAS No**		107-07-3					
Ethylene cyanohydrin	757	0	0	0	NI	2	NI	1	0	(2)	1	2			D	2
Ethylene cyanohydrin	328		**RTECS No**		MU5250000				**CAS No**		109-78-4					
Ethylene diamine	758	0	1	1	R	3	1	1	2	1	3	3	S		D	3
Ethylenediamine	343		**RTECS No**		KH8575000				**CAS No**		107-15-3					
Ethylene diamine, tetra acetic acid, di- and tetra-sodium salt	759	0	NI	0	NR	2	0	1	(1)	(2)	1	2			D	2
Ethylenediaminetetraacetic acid, tetrasodium salt solution	344		**RTECS No**		AH4375000				**CAS No**		#Error					
Ethylene dibromide	760	1	2	2	NR	3	NI	2	2	2	3	3	CRT		SD	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Ethylene dibromide	329		**RTECS No**		KH9275000				**CAS No**		106-93-4					
1,2-Dichloroethane	591	1	1	1	NR	2	0	1	0	2	1	2	C		SD	3
Ethylene dichloride	330		**RTECS No**		KI0525000				**CAS No**		107-06-2					
Ethylene glycol	761	0	NI	0	R	0	0	1	(1)	(1)	0	0	R		D	3
Ethylene glycol	331		**RTECS No**		KW2975000				**CAS No**		107-21-1					
Ethylene glycol monoacetate	762	0	NI	0	R	2	NI	0	0	(3)	NI	(3)	R		D	3
Ethylene glycol acetate	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			FD	1
Ethylene glycol butyl ether acetate	334		**RTECS No**		KJ8925000				**CAS No**		112-07-2					
Ethylene glycol diacetate	765	0	NI	0	NI	2	NI	0	0	(1)	1	NI			D	1
Ethylene glycol diacetate	335		**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			D	NI
Ethylene glycol methyl butyl ether	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		D	3
Ethylene glycol methyl ether acetate	337		**RTECS No**		KL5950000				**CAS No**		110-49-6					
Ethylene glycol monoalkyl ethers	2268	0	NI	0	R	2	NI	1	2	2	1	2			D	2
Ethylene glycol monoalkyl ethers	338		**RTECS No**						**CAS No**							
Ethylene glycol phenyl ether	775	1	NI	1	R	1	0	1	0	(2)	1	2			SD	2
Ethylene glycol phenyl ether	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)			SD	2
Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture	340		**RTECS No**						**CAS No**							
Ethylene oxide	77	NI	NI	NI	NI	NI	NI	1	(1)	3	3	3	CMRS		GD	3
Ethylene oxide	2744		**RTECS No**		KX2450000				**CAS No**		75-21-8					
Propylene oxide/Ethylene oxide mixture	78	0	NI	0	R	1	NI	1	1	3	3	3	CMR		DE	3
Ethylene oxide/Propylene oxide mixture with an ethylene oxide content of not more than 30% by mass	341		**RTECS No**						**CAS No**							
Ethylene vinyl acetate copolymer (emulsion)	779	0	1	1	NR	0	0	0	(0)	(2)	2	0			S	NI
Ethylene-vinyl acetate copolymer (emulsion)	342		**RTECS No**						**CAS No**							
Ethyl-3-ethoxypropionate	1439	1	NI	1	NR	2	NI	0	0	2	1	1			FD	2
Ethyl-3-ethoxypropionate	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		FD	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
2-Ethylhexanoic acid	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		F	3
2-Ethylhexyl acrylate	46		**RTECS No**		AT0855000				**CAS No**		103-11-7					
Isooctylamine	1081	2	NI	2	NI	3	NI	1	1	3	3	3			FD	3
2-Ethylhexylamine	48		**RTECS No**		MQ5250000				**CAS No**		104-75-6					
Mobil syndril E51	2221	0	NI	0	R	1	NI	0	(0)	(0)	1	0			F	1
2-Ethylhexyl esters of fatty acids	2578		**RTECS No**						**CAS No**							
2-Ethyl-2-(hydroxymethyl)propane-1,3-diol C8-C10 ester (LOA)	2054	0	NI	0	R	0	NI	0	(0)	(0)	0	(0)			Fp	2
2-Ethyl-2-(hydroxymethyl) propane-1,3-diol (C8-C10) ester	42		**RTECS No**						**CAS No**							
5-Ethylidene-2-norbornene	783	3	3	3	NR	3	0	0	0	2	1	2			FE	2
Ethylidene norbornene	345		**RTECS No**		RB9450000				**CAS No**		16219-75-3					
Ethyl isoamyl ketone	737	NI	NI	NI	NI	NI	NI	0	0	(1)	1	(2)			FD	2
Ethyl isoamyl ketone	2618		**RTECS No**		MJ7350000				**CAS No**		541-85-5					
Ethyl methacrylate	785	1	NI	1	R	2	NI	0	0	0	(2)	(2)	S		FE	2
Ethyl methacrylate	318		**RTECS No**		OZ4550000				**CAS No**		97-63-2					
N-Ethyl-2-methallylamine	2228	0	NI	0	NR	2	NI	3	2	2	3A	3			D	3
N-Ethylmethylallylamine	2417		**RTECS No**						**CAS No**							
o-Ethyl phenol	788	2	NI	2	NI	(2)	NI	1	NI	NI	NI	NI			S	NI
o-Ethylphenol	535		**RTECS No**		SL4025000				**CAS No**		90-00-6					
Ethyl propionate	790	1	NI	1	NI	2	0	0	(1)	(2)	2	2			ED	2
Ethyl propionate	319		**RTECS No**		UF3675000				**CAS No**		105-37-3					
2-Ethyl-3-propyl acrolein	791	2	NI	2	R	3	NI	0	0	1	3	3			FE	3
2-Ethyl-3-propylacrolein	43		**RTECS No**		MP6300000				**CAS No**		645-62-5					
Ethyl toluene (all isomers)	2297	3	NI	3	NI	(3)	NI	0	0	0	2	2			F	2
Ethyl toluene	346		**RTECS No**						**CAS No**							
Tetradecanoic acid (Myristic acid)	1298	5	NI	0	R	0	NI	0	(0)	(1)	(1)	(1)			Fp	2
Fatty acid (saturated C13+)	347		**RTECS No**		QH4375000				**CAS No**		544-63-8					
Fatty acids, essentially linear, C6-C18, 2-ethylhexyl ester	2253	0	NI	0	R	1	NI	0	0	(1)	1	0			Fp	2
Fatty acid (C8-C16) ethyl hexyl esters	2759		**RTECS No**						**CAS No**							
Fatty acid methyl esters	2362	0	NI	0	R	2	NI	0	(0)	(2)	2	2			Fp	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Fatty acid methyl esters (m)	3125		**RTECS No**						**CAS No**							
Fatty acids saturated, C8-C10	2324	0	NI	0	R	4	NI	0	0	(3)	3C	3			NI	NI
Fatty acids, (C8-C10)	3079		**RTECS No**						**CAS No**							
Fatty acids, linear, C8-C18 saturated with C18 unsaturated	2260	(4)	NI	(4)	R	(4)	(1)	(0)	(0)	(1)	(1)	(1)			Fp	3
Fatty acids, (C8-C18)	2779		**RTECS No**						**CAS No**							
Fatty acids, linear C12+ saturated with C12+ unsaturated	2261	5	0	0	(R)	0	NI	(0)	(0)	(1)	(1)	(1)			NI	2
Fatty acids, (C12+)	2780		**RTECS No**						**CAS No**							
Fatty acids, unsaturated, linear, C16+	2259	0	0	0	R	(0)	NI	0	0	(0)	0	0			Fp	2
Fatty acids, (C16+)	2778		**RTECS No**						**CAS No**							
Fatty acids, essentially linear, C6-C18, 2-ethylhexyl ester	2253	0	NI	0	R	1	NI	0	0	(1)	1	0			Fp	2
Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester	1914		**RTECS No**						**CAS No**							
Ferric chloride	339	Inorg	5	5	Inorg	2	0	1	(0)	(3)	2	3			D	3
Ferric chloride solutions	348		**RTECS No**		LJ9100000				**CAS No**		7705-08-0					
Ferric hydroxyethyl ethylene diamine triacetic acid, tri- sodium salt, solution	796	NI	NI	NI	NI	NI	NI	0	0	(1)	(0)	1			D	1
Ferric hydroxyethylethylenediaminetriacetic acid, trisodium salt solution	349		**RTECS No**						**CAS No**							
Ferric nitrate/nitric acid solution	337	Inorg	5	5	Inorg	2	0	0	(0)	(3)	3	3			D	3
Ferric nitrate/Nitric acid solution	350		**RTECS No**						**CAS No**							
Fish oil (containing less than 10% free fatty acids)	2316	0	NI	0	R	2	NI	(0)	(0)	(1)	(0)	(1)			Fp	2
Fish oil	3046		**RTECS No**						**CAS No**							
Fish solubles	1509	NI	NI	NI	NI	NI	NI	(0)	(0)	(0)	(0)	(0)			NI	NI
Fish solubles (water-based fish meal extract)	351		**RTECS No**						**CAS No**							
Fluorosilicic acid	806	Inorg	0	0	Inorg	2	NI	2	(2)	4	3	3			D	3
Fluorosilicic acid	2716		**RTECS No**		VV8225000				**CAS No**		16961-83-4					
Fluorosilicic acid (20-30%) in water solution	2240	Inorg	0	0	Inorg	2	NI	(1)	(1)	4	3	3			D	3
Fluorosilicic acid (20-30%) in water solution	353		**RTECS No**						**CAS No**							
Formaldehyde, polymer with isobutylenated phenol	2377	NI	NI	NI	NR	NI	NI	NI	NI	NI	NI	NI			Fp	NI
Formaldehyde, polymer with isobutylenated phenol	1203		**RTECS No**						**CAS No**							
Formaldehyde (37%-50% solution)	807	0	NI	0	R	2	NI	2	2	3	3	3	CSM	NT	D	3
Formaldehyde solutions (45% or less)	354		**RTECS No**		LP8925000				**CAS No**		50-00-0					
Formamide	808	0	NI	0	NR	1	NI	0	0	1	1	2	R		D	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Formamide	355		**RTECS No**		LQ0525000				**CAS No**		75-12-7					
Formic acid	809	0	NI	0	R	2	NI	1	(1)	2	3C	3			D	3
Formic acid	356		**RTECS No**		LQ4900000				**CAS No**		64-18-6					
Fumaric adduct of rosin (water dispersion)	810	0	NI	0	R	3	NI	(0)	NI	NI	NI	NI			NI	NI
Fumaric adduct of rosin, water dispersion	357		**RTECS No**						**CAS No**							
Furfural	812	0	NI	0	R	2	NI	2	(2)	3	2	2	C		D	3
Furfural	358		**RTECS No**		LT7000000				**CAS No**		98-01-1					
Furfuryl alcohol	813	0	NI	0	R	(3)	NI	2	2	3	2	2			D	2
Furfuryl alcohol	359		**RTECS No**		LU9100000				**CAS No**		98-00-0					
Glucitol/glycerol blend, propoxylated containing less than 10% amines	2368	0	NI	0	NR	1	NI	1	0	(2)	(1)	(1)			SD	2
Glucitol/glycerol blend propoxylated (containing less than 10% amines)	3074		**RTECS No**						**CAS No**							
Dextrose solution	562	0	0	0	R	0	NI	0	0	0	0	(0)			D	0
Glucose solution	361		**RTECS No**		LZ6600000				**CAS No**		50-99-7					
1,5-Pentanedial solution, (5-50%)	1107	0	NI	0	R	3	0	1	0	4	3	3	S		D	3
Glutaraldehyde solutions (50% or less)	362		**RTECS No**		MA2450000				**CAS No**		111-30-8					
Glycerine	814	0	NI	0	R	0	NI	0	0	(1)	0	1			D	1
Glycerine	363		**RTECS No**		MA8050000				**CAS No**		56-81-5					
Glycerine (83%)/ Dioxane-dimethanol (17%) mixture	1743	NI	NI	NI	R	1	NI	0	(0)	(1)	(0)	1			D	1
Glycerine (83%), Dioxanedimethanol (17%) mixture	364		**RTECS No**						**CAS No**							
Glycerol ethoxylated	2360	0	NI	0	R	0	NI	0	0	(0)	0	0			D	0
Glycerol ethoxylated	3123		**RTECS No**						**CAS No**							
Glycerol monooleate	1898	0	0	0	R	0	NI	0	(0)	(1)	1	1			Fp	2
Glycerol monooleate	365		**RTECS No**		RK1300000				**CAS No**		25496-72-4					
Glycerol propoxylated	2346	0	NI	0	NR	1	NI	1	0	(2)	1	0			D	2
Glycerol propoxylated	3110		**RTECS No**						**CAS No**							
Glycerol, propoxylated and ethoxylated	2276	0	NI	0	NR	1	0	0	0	0	0	0			SD	2
Glycerol, propoxylated and ethoxylated	2872		**RTECS No**						**CAS No**							
Glycerol/sorbitol blend, propoxylated and ethoxylated	2372	0	NI	0	NR	2	NI	NI	NI	NI	NI	NI			NI	NI
Glycerol/sorbitol blend, propoxylated and ethoxylated	3136		**RTECS No**						**CAS No**							
Glycerol/sucrose blend, propoxylated and ethoxylated	2361	0	NI	0	NR	1	NI	0	0	0	0	0			SD	0

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Glycerol/sucrose blend propoxylated and ethoxylated	3124		**RTECS No**						**CAS No**							
Glyceryl triacetate	816	0	NI	0	R	1	0	1	0	0	0	1			D	1
Glyceryl triacetate	367		**RTECS No**		AK3675000				**CAS No**		102-76-1					
Glycidyl ester of C10 trialkyl acetic acid	441	3	NI	3	NR	3	NI	0	0	(2)	2	1			F	2
Glycidyl ester of C10 trialkylacetic acid	368		**RTECS No**						**CAS No**							
Glycine, Sodium salt, solution	817	0	NI	0	NI	0	NI	0	(0)	(1)	(0)	(1)			D	1
Glycine, sodium salt solution	369		**RTECS No**		MB7600000				**CAS No**		56-40-6					
Glycolic acid	2218	0	0	0	R	1	NI	1	(1)	2	3C	3			D	3
Glycolic acid solution (70% or less)	2539		**RTECS No**						**CAS No**							
Glyoxal solutions (40% or less)	84	0	NI	0	R	1	NI	0	0	2	2	3	MS		D	3
Glyoxal solution (40% or less)	370		**RTECS No**		MD2700000				**CAS No**		107-22-2					
Glyoxylic acid	1535	0	NI	0	R	2	0	0	0	(3)	0	3	S		D	3
Glyoxylic acid solution (50 % or less)	371		**RTECS No**		MD4550000				**CAS No**		298-12-4					
Glyphosate solution, without surfactant	1765	0	0	0	NR	3	0	0	0	(3)	0	3			D	3
Glyphosate solution (not containing surfactant)	2204		**RTECS No**		MC1075000				**CAS No**		1071-83-6					
Groundnut oil	820	0	NI	0	R	(2)	NI	(0)	(0)	(0)	(0)	0			Fp	2
Groundnut oil	2769		**RTECS No**		RX2830000				**CAS No**		8002-03-7					
Heptane	827	4	NI	4	R	4	NI	0	0	0	(1)	1	A		E	2
Heptane (all isomers)	372		**RTECS No**		MI7700000				**CAS No**		142-82-5					
Heptanoic acid	831	2	NI	2	R	1	NI	0	0	(3)	3B	(3)			FD	3
n-Heptanoic acid	479		**RTECS No**		MJ1575000				**CAS No**		111-14-8					
1-Heptanol	828	2	NI	2	R	2	NI	1	0	2	(2)	(2)			FD	2
1-Heptanol	2688		**RTECS No**		MK0350000				**CAS No**		111-70-6					
Heptanol (all isomers)	2223	2	NI	2	R	(2)	NI	0	0	(2)	(1)	(2)			FD	2
Heptanol (all isomers) (d)	373		**RTECS No**						**CAS No**							
Heptene (all isomers)	2225	3	NI	3	NI	2	NI	(0)	(0)	(0)	(2)	(1)			E	2
Heptene (all isomers)	374		**RTECS No**						**CAS No**							
1-Heptene	832	3	NI	3	NI	2	NI	(0)	(0)	(0)	(2)	(1)			E	2
1-Heptene	2685		**RTECS No**		MJ8815000				**CAS No**							
Heptyl acetate	833	3	NI	3	NI	(3)	NI	0	0	(2)	1	2			F	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Heptyl acetate	375		**RTECS No**		AH9901000				**CAS No**		112-06-1					
Hexadecyl naphthalene/dihexadecyl naphthalene mixture	2159	0	NI	0	NR	0	NI	0	0	(1)	1	1			Fp	2
1-Hexadecylnaphthalene / 1,4-bis(hexadecyl)naphthalene mixture	2373		**RTECS No**						**CAS No**							
Hexamethylene diamine	845	0	NI	0	R	2	NI	1	1	(3)	3A	3	SR		D	3
Hexamethylenediamine	377		**RTECS No**		MO1180000				**CAS No**		124-09-4					
Hexamethylene diamine	845	0	NI	0	R	2	NI	1	1	(3)	3A	3	SR		D	3
Hexamethylenediamine (molten)	378		**RTECS No**		MO1180000				**CAS No**		124-09-4					
Hexamethylene diamine adipate, 50% in water	846	0	NI	0	R	1	NI	0	(0)	(0)	0	0			D	0
Hexamethylenediamine adipate (50% in water)	379		**RTECS No**		AV1940000				**CAS No**		3323-53-3					
Hexamethylene diamine	845	0	NI	0	R	2	NI	1	1	(3)	3A	3	SR		D	3
Hexamethylenediamine solution	380		**RTECS No**		MO1180000				**CAS No**		124-09-4					
Hexamethylene diisocyanate	2142	3	0	0	NR	2	NI	1	2	4	3	3	S		S	3
Hexamethylene diisocyanate	18		**RTECS No**						**CAS No**							
Hexamethylene glycol	847	0	NI	0	R	1	NI	0	0	(1)	0	1			D	1
Hexamethylene glycol	376		**RTECS No**		MO2100000				**CAS No**		629-11-8					
Hexamethyleneimine	848	1	NI	1	NI	2	NI	3	1	2	NI	NI			FED	2
Hexamethyleneimine	381		**RTECS No**		CM3150000				**CAS No**		111-49-9					
Hexamethylene tetramine (40% solution)	849	0	NI	0	R	0	NI	0	0	(1)	0	1	S		D	2
Hexamethylenetetramine solutions	382		**RTECS No**		MN4725000				**CAS No**		100-97-0					
Hexane	850	3	NI	3	R	4	NI	0	0	0	2	2	NA		E	2
Hexane	2683		**RTECS No**		MN9275000				**CAS No**		100-54-3					
Hexane	850	3	NI	3	R	4	NI	0	0	0	2	2	NA		E	2
Hexane (all isomers)	383		**RTECS No**		MN9275000				**CAS No**		100-54-3					
1,6-Hexanediol, distillation overheads	2143	4	NI	4	NR	2	NI	0	0	2	1	2			FED	2
1,6-Hexanediol, distillation overheads	2641		**RTECS No**						**CAS No**							
Hexanoic acid	853	2	NI	2	R	2	NI	0	0	(3)	(3)	3			FD	3
Hexanoic acid	384		**RTECS No**		MO5250000				**CAS No**		142-62-1					
1-Hexanol	854	1	0	0	(R)	2	NI	1	0	(3)	1	3			FD	3
Hexanol	385		**RTECS No**		MQ4025000				**CAS No**		111-27-3					
Hexene (all isomers)	2224	3	NI	3	R	3	NI	(0)	(0)	(1)	(1)	(1)			E	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Hexene (all isomers)	386		**RTECS No**						**CAS No**							
1-Hexene	855	3	NI	3	R	3	NI	0	0	0	1	1			E	2
1-Hexene	2681		**RTECS No**		MP6600100				**CAS No**		592-41-6					
2-Hexene (mixed isomers)	856	3	NI	3	R	3	NI	(0)	(0)	(1)	(1)	(1)			E	2
2-Hexene (mixed isomers)	2682		**RTECS No**						**CAS No**							
Hexyl acetate	857	2	NI	2	NI	3	NI	0	0	(1)	1	1			FE	2
Hexyl acetate	387		**RTECS No**		AI0875000				**CAS No**		142-92-7					
Hexylene glycol	859	0	NI	0	R	0	0	0	0	(2)	2	2			D	2
Hexylene glycol	388		**RTECS No**		SA0810000				**CAS No**		107-41-5					
Hydrocarbon waxes	2278	0	NI	0	NR	0	0	0	0	2	1	1			Fp	2
Hydrocarbon waxes	2886		**RTECS No**						**CAS No**							
Hydrochloric acid	864	Inorg	0	0	Inorg	1	NI	1	1	3	3C	3			DE	3
Hydrochloric acid	389		**RTECS No**		MW4025000				**CAS No**		7647-01-0					
Hydrogenated Starch Hydrolysate	2347	0	NI	0	R	0	NI	0	0	(0)	0	0			D	0
Hydrogenated starch hydrolysate	3077		**RTECS No**						**CAS No**							
Hydrogen peroxide, more than 60%	867	Inorg	0	0	Inorg	3	NI	1	0	2	3	3			D	3
Hydrogen peroxide, more than 60%	2689		**RTECS No**		MX0900000				**CAS No**		7722-84-1					
Hydrogen peroxide, more than 8% but not more than 60%	2231	Inorg	0	0	Inorg	3	NI	1	0	(2)	3	3			D	3
Hydrogen peroxide, more than 8% but not more than 60%	2690		**RTECS No**						**CAS No**							
Hydrogen peroxide, more than 60%	867	Inorg	0	0	Inorg	3	NI	1	0	2	3	3			D	3
Hydrogen peroxide solutions (over 60% but not over 70% by mass)	390		**RTECS No**		MX0900000				**CAS No**		7722-84-1					
Hydrogen peroxide, more than 8% but not more than 60%	2231	Inorg	0	0	Inorg	3	NI	1	0	(2)	3	3			D	3
Hydrogen peroxide solutions (over 8% but not over 60% by mass)	391		**RTECS No**						**CAS No**							
Ethylene glycol acrylate	869	0	NI	0	R	4	NI	1	3	3	3	3	SM		D	3
2-Hydroxyethyl acrylate	51		**RTECS No**		AT1750000				**CAS No**		818-61-1					
N-(2-Hydroxyethyl) ethylene diamine triacetic acid, trisodium salt (solution)	870	0	NI	0	NI	1	NI	0	0	(1)	1	1	R		D	3
N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution	470		**RTECS No**		MB9185000				**CAS No**		150-30-0					
2-Hydroxy-4-(methylthio) butanoic acid	871	1	NI	1	R	1	NI	0	0	(3)	1	3			D	3
2-Hydroxy-4-(methylthio)butanoic acid	49		**RTECS No**		ET4761500				**CAS No**		583-91-5					
Icosa(oxypropane-2,3-diyl)s	2092	NI	NI	NI	NI	NI	NI	0	(0)	(2)	2	(2)			Fp	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Icosa(oxypropane-2,3-diyl)s	2691		**RTECS No**						**CAS No**							
Icosa(oxypropane-2,3-diyl)s	2092	NI	NI	NI	NI	NI	NI	0	(0)	(2)	2	(2)			Fp	2
Icosa(oxypropane-2,3-diyl)s	392		**RTECS No**						**CAS No**							
Illipe oil (containing less than 10% free fatty acids)	2304	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Illipe oil	3034		**RTECS No**						**CAS No**							
Interesterified Mixed Vegetable Oils	2355	0	NI	0	R	(0)	NI	(0)	(0)	(1)	(1)	(1)			Fp	2
Interesterified vegetable oils	3115		**RTECS No**						**CAS No**							
3-Methyl-1-butanol	965	1	1	1	(R)	1	0	1	0	(2)	2	2			FED	2
Isoamyl alcohol	396		**RTECS No**		EL5425000				**CAS No**		123-51-3					
Isobutanol	382	0	NI	0	R	1	0	0	0	1	2	3			D	3
Isobutyl alcohol	397		**RTECS No**		NP9625000				**CAS No**		78-83-1					
Isobutyl formate	405	1	NI	1	NI	1	NI	0	(0)	0	(1)	(2)			E	2
Isobutyl formate	398		**RTECS No**		LQ8650000				**CAS No**		542-55-2					
Isobutyl methacrylate	408	2	NI	2	NR	1	NI	0	0	0	2	2	S		FED	2
Isobutyl methacrylate	2673		**RTECS No**		OZ4900000				**CAS No**		97-86-9					
Isobutyric acid	419	0	NI	0	R	2	NI	2	2	(3)	3	3			E	NI
Isobutyric acid	2459		**RTECS No**		NQ4375000				**CAS No**		79-31-2					
Isononylaldehyde	2300	3	NI	3	NR	(3)	NI	0	0	(2)	2	1			F	2
Isononylaldehyde	2754		**RTECS No**						**CAS No**							
Isophorone	879	1	1	1	R	2	0	1	1	(2)	1	2			FD	2
Isophorone	399		**RTECS No**		GW7700000				**CAS No**		78-59-1					
Isophorone diamine	880	0	0	0	NR	2	0	1	(1)	(3)	3	3	S		D	3
Isophoronediamine	401		**RTECS No**		GV6129000				**CAS No**		2855-13-2					
Isophorone diisocyanate	881	1	NI	1	NR	4	NI	0	0	4	3	3	SA		S	3
Isophorone diisocyanate	400		**RTECS No**		NQ9370000				**CAS No**		4098-71-9					
Isoprene	882	2	2	2	NR	2	NI	0	0	0	1	2	CM		E	3
Isoprene	402		**RTECS No**		NT4037000				**CAS No**		78-79-5					
Isopropanolamine	1182	0	NI	0	R	2	NI	0	1	0	3	3			D	3
Isopropanolamine	403		**RTECS No**		UA5775000				**CAS No**		78-96-6					
Isopropyl acetate	1192	1	NI	1	R	1	NI	0	0	0	1	2			ED	2

ANNEX 6 - GESAMP/EHS COMPOSITE LIST
GESAMP Hazard Profiles

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Isopropyl acetate	404		**RTECS No**		AI4930000				**CAS No**		108-21-4					
Isopropanol	1181	0	NI	0	R	0	0	0	0	0	1	2			D	2
Isopropyl alcohol	405		**RTECS No**		NT8050000				**CAS No**		67-63-0					
Isopropylamine	1195	0	NI	0	R	2	NI	2	2	1	3	3			DE	3
Isopropylamine	407		**RTECS No**		NT8400000				**CAS No**		75-31-0					
Isopropylamine (70%)	2350	0	NI	0	R	2	NI	2	2	1	3	3			DE	3
Isopropylamine (70% or less) solution	395		**RTECS No**						**CAS No**							
Isopropyl benzene	1197	3	2	2	R	3	NI	0	0	0	2	1			FE	2
Isopropylbenzene	2687		**RTECS No**		GR8575000				**CAS No**		98-82-8					
Isopropyl cyclohexane	1199	4	NI	4	(NR)	(3)	NI	(0)	(0)	(1)	(0)	(1)			FE	2
Isopropylcyclohexane	408		**RTECS No**						**CAS No**		696-29-7					
Diisopropyl ether	711	1	NI	1	NR	2	NI	0	0	0	1	1			E	2
Isopropyl ether	406		**RTECS No**		TZ5425000				**CAS No**		108-20-3					
Jatropha oil	2402	0	NI	(0)	(R)	(2)	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Jatropha oil	3637		**RTECS No**						**CAS No**							
Kaolin slurry	883	Inorg	NI	0	Inorg	0	NI	0	0	0	0	0			S	0
Kaolin slurry	409		**RTECS No**		GF1670500				**CAS No**		1332-58-7					
Lactic acid	886	0	NI	0	R	1	NI	0	0	(3)	2	3			D	3
Lactic acid	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			D	3
Lactonitrile solution (80% or less)	411		**RTECS No**		OD8225000				**CAS No**		78-97-7					
Lard (containing less than 10% free fatty acids)	2317	0	NI	0	R	0	NI	0	(0)	(1)	0	1			Fp	2
Lard	3047		**RTECS No**						**CAS No**							
Latex, ammonia inhibited	889	0	NI	0	R	(2)	NI	0	0	(1)	0	1			D	1
Latex, ammonia (1% or less)- inhibited	413		**RTECS No**						**CAS No**							
Styrene butadiene rubber latex	1274	0	NI	0	NR	0	NI	0	0	(1)	0	1			D	1
Latex: Carboxylated styrene-Butadiene copolymer; Styrene-Butadiene rubber	414		**RTECS No**						**CAS No**							
Lauric acid	891	4	NI	4	R	4	1	0	(0)	(2)	1	2			Fp	2
Lauric acid	415		**RTECS No**		OE9800000				**CAS No**		143-07-7					
Alkyl(C12-C14)polyglucoside solution (max 55% active material)	2137	3	NI	3	R	3	0	0	0	(3)	2	3			D	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Lauryl polyglucose (50% or less)	416		**RTECS No**						**CAS No**		110615-47-9					
Lecithin (soybeans)	2146	0	NI	0	R	0	NI	0	0	(0)	0	(0)			SD	0
Lecithin	417		**RTECS No**						**CAS No**							
Lignin sulphonic acid, salt solution	34	0	NI	0	(NR)	(0)	NI	0	(0)	(0)	(0)	(0)			D	0
Ligninsulphonic acid, sodium salt solution	419		**RTECS No**						**CAS No**							
Linseed oil (containing less than 4% free fatty acids)	2318	0	NI	0	R	(2)	NI	0	(0)	(1)	0	(1)			Fp	2
Linseed oil	3048		**RTECS No**						**CAS No**							
Long chain alkaryl polyether (C11-C20) (LOA)	1982	(4)	NI	(4)	NR	3	(1)	0	0	(2)	0	2			Fp	2
Long-chain alkaryl polyether (C11-C20)	421		**RTECS No**						**CAS No**							
Long chain alkaryl sulphonic acid (C16-C60) (LOA)	1966	0	NI	0	(NR)	0	NI	0	0	(2)	(1)	2			Fp	2
Long-chain alkaryl sulphonic acid (C16-C60)	424		**RTECS No**						**CAS No**							
Long-chain alkylphenate/Phenol sulphide mixture	1754	(0)	NI	(0)	(NR)	0	NI	0	0	(2)	2	2	S		Fp	3
Long-chain alkylphenate/Phenol sulphide mixture	425		**RTECS No**						**CAS No**							
OGA 480 OGA 492 (Polyether amine)	1457	NI	NI	NI	NR	2	NI	0	0	(2)	2	2			Fp	2
Long-chain polyetheramine in alkyl (C2-C4) benzenes	422		**RTECS No**						**CAS No**							
OGA 480 OGA 492 (Polyether amine)	1457	NI	NI	NI	NR	2	NI	0	0	(2)	2	2			Fp	2
Long-chain polyetheramine in aromatic solvent	423		**RTECS No**						**CAS No**							
L-Lysine solution (50% or less)	2199	0	0	0	R	1	0	0	0	0	1	NI			D	1
L-Lysine solution (60% or less)	2306		**RTECS No**						**CAS No**							
Magnesium chloride	915	Inorg	0	0	Inorg	1	0	0	0	(0)	0	0			D	0
Magnesium chloride solution	427		**RTECS No**		OM2800000				**CAS No**		7786-30-3					
Magnesium hydroxide slurry	916	Inorg	0	0	Inorg	0	NI	0	0	(1)	(0)	1			S	1
Magnesium hydroxide slurry	428		**RTECS No**		OM3570000				**CAS No**		1309-42-8					
Magnesium lignosulphonate solutions	2356	(0)	NI	(0)	(NR)	(0)	NI	0	0	(0)	(0)	(0)			D	0
Magnesium lignosulphonate solutions	3116		**RTECS No**						**CAS No**							
Magnesium long chain alkaryl sulphonate (C11-C50) (LOA)	1967	0	NI	0	NR	0	NI	0	0	(2)	1	2	S		Fp	3
Magnesium long-chain alkaryl sulphonate (C11-C50)	430		**RTECS No**						**CAS No**							
Magnesium alkyl (long chain) salicylate (overbased) in mineral oil (LOA)	71	(0)	NI	(0)	NR	(2)	NI	0	0	(1)	(1)	(1)	S		S	2
Magnesium long-chain alkyl salicylate (C11+)	429		**RTECS No**						**CAS No**							
Maleic anhydride	921	1	NI	1	R	2	0	1	2	(3)	3	3	S		D	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Maleic anhydride	431		**RTECS No**		ON3675000				**CAS No**		108-31-6					
Maltitol Syrup	2348	0	NI	0	R	0	NI	0	0	(0)	0	0			D	0
Maltitol solution	3078		**RTECS No**						**CAS No**							
Mango kernal oil (containing less than 10% free fatty acids)	2305	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Mango kernel oil	3035		**RTECS No**						**CAS No**							
2-Mercaptobenzothiazol	925	2	1	1	NR	4	2	0	0	(0)	0	0	S		S	2
Mercaptobenzothiazol, sodium salt solution	432		**RTECS No**		DL6475000				**CAS No**		149-30-4					
Mesityl oxide	946	1	NI	1	R	(1)	NI	1	0	2	2	2			D	2
Mesityl oxide	433		**RTECS No**		SB4200000				**CAS No**		141-79-7					
Metam-sodium (ISO)	202	0	NI	0	NR	4	NI	1	2	(2)	2	1	S		D	2
Metam sodium solution	434		**RTECS No**		FC2100000				**CAS No**		137-42-8					
Methacrylic acid, inhibited	948	0	NI	0	R	2	0	1	2	2	3	3			D	3
Methacrylic acid	435		**RTECS No**		OZ2975000				**CAS No**		79-41-4					
Methacrylic acid-alkoxypoly (alkylene oxide) methacrylate co-polymer sodium salt (45% or less solution)	2288	NI	0	0	NR	1	NI	0	(0)	(1)	1	0			D	1
Methacrylic acid - alkoxypoly (alkylene oxide) methacrylate copolymer, sodium salt aqueous solution (45% or less)	2819		**RTECS No**						**CAS No**							
Methacrylic resin in 1,2 Dichloroethane soln.	2046	1	1	1	NR	2	0	(1)	(0)	(2)	(1)	(2)	C		SD	3
Methacrylic resin in ethylene dichloride	436		**RTECS No**						**CAS No**							
Methacrylonitrile	949	0	NI	0	R	2	0	3	2	4	1	1	S	NT	ED	3
Methacrylonitrile	437		**RTECS No**		UD1400000				**CAS No**		126-98-7					
Butylene glycol monomethyl ether	952	0	NI	0	R	(1)	NI	0	0	(1)	0	1			D	1
3-Methoxy-1-butanol	57		**RTECS No**						**CAS No**		2517-43-3					
Butylene glycol methyl ether acetate	953	1	1	1	R	3	NI	0	(0)	(1)	1	1			FED	1
3-Methoxybutyl acetate	58		**RTECS No**		EL4725000				**CAS No**		4435-53-4					
Metolachlor (ISO)	113	2	2	2	NR	5	1	1	0	(2)	1	0	S		S	2
N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetanilide	469		**RTECS No**		AN3430000				**CAS No**		51218-45-2					
Methyl acetate	954	0	NI	0	R	1	NI	0	0	0	1	2			DE	2
Methyl acetate	438		**RTECS No**		AI9100000				**CAS No**		79-20-9					
Methyl acetoacetate	335	0	NI	0	R	1	NI	0	0	(2)	1	2			D	2
Methyl acetoacetate	439		**RTECS No**		AK5775000				**CAS No**		105-45-3					
Methyl acrylate	955	0	NI	0	R	3	NI	1	1	2	2	3	MS		D	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Methyl acrylate	440		**RTECS No**		AT2800000				**CAS No**		96-33-3					
Methanol	951	0	NI	0	R	0	0	3	(3)	(4)	2	2	T		DE	3
Methyl alcohol	441		**RTECS No**		PC1400000				**CAS No**		67-56-1					
Methylamine solution 42% or less	957	0	NI	0	R	2	NI	2	(2)	3	3	3	M	NT	DE	3
Methylamine solutions (42% or less)	455		**RTECS No**		PF6300000				**CAS No**		74-89-5					
sec-Hexyl acetate	858	2	NI	2	NI	3	NI	0	0	0	1	(2)			FED	2
Methylamyl acetate	456		**RTECS No**		SA7525000				**CAS No**		108-84-9					
Methyl amyl alcohol	958	1	NI	1	R	1	NI	1	0	2	1	3			FED	3
Methylamyl alcohol	457		**RTECS No**		SA7350000				**CAS No**		108-11-2					
Methyl amyl ketone	959	1	NI	1	NI	1	NI	1	0	0	1	1			FED	2
Methyl amyl ketone	442		**RTECS No**		MJ5075000				**CAS No**		110-43-0					
N-Methyl aniline	961	1	NI	1	(NR)	3	1	1	1	(2)	(1)	1			FD	2
N-Methylaniline	3107		**RTECS No**		BY4550000				**CAS No**		100-61-8					
Methyl butenol	967	0	NI	0	R	2	NI	1	0	(2)	2	2			D	2
Methylbutenol	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
Methyl tert-butyl ether	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		FED	3
Methyl butyl ketone	443		**RTECS No**		MP1400000				**CAS No**		591-78-6					
Methylbutynol	968	0	NI	0	NR	1	NI	1	1	3	0	2			D	2
Methylbutynol	459		**RTECS No**		ES0810000				**CAS No**		115-19-5					
Methyl butyrate	973	1	NI	1	NI	(2)	NI	0	0	2	2	(2)			ED	2
Methyl butyrate	444		**RTECS No**		ET5500000				**CAS No**		623-42-7					
Methyl cyclohexane	976	3	3	3	NR	3	1	0	0	1	1	1	A		E	2
Methylcyclohexane	460		**RTECS No**		GV6125000				**CAS No**		108-87-2					
Methyl cyclopentadiene, dimer	977	4	NI	4	(NR)	(3)	NI	0	(0)	(2)	(2)	(2)			F	2
Methylcyclopentadiene dimer	461		**RTECS No**		PC1075000				**CAS No**		26472-00-4					
Methyl cyclopentadienyl manganese tricarbonyl (60-70%) in mineral oil	2213	3	NI	3	NR	4	NI	2	3	4	1	1			S	3
Methylcyclopentadienyl manganese tricarbonyl	2692		**RTECS No**						**CAS No**							
N-Methyldiethanolamine	1491	0	NI	0	R	2	NI	1	0	(2)	1	2			D	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Methyl diethanolamine	445		**RTECS No**		KL7525000				**CAS No**		105-59-9					
Methylene dithiocyanate	2235	2	NI	2	NR	5	NI	2	0	4	NI	NI	S		NI	3
Methylene bisthiocyanate	2693		**RTECS No**						**CAS No**							
2-Methyl-6-ethylaniline	984	2	NI	2	NR	2	NI	1	1	(2)	0	2			FD	2
2-Methyl-6-ethyl aniline	54		**RTECS No**		BY5600000				**CAS No**		24549-06-2					
2-Butanone	385	0	NI	0	R	1	0	0	0	1	2	2			DE	2
Methyl ethyl ketone	446		**RTECS No**		EL6475000				**CAS No**		78-93-3					
2-Methyl-5-ethylpyridine	986	2	NI	2	NI	2	NI	1	2	(3)	3	3			FD	3
2-Methyl-5-ethyl pyridine	53		**RTECS No**		TJ6825000				**CAS No**		104-90-5					
Methyl formate	987	0	NI	0	R	1	NI	1	0	2	0	2			DE	2
Methyl formate	447		**RTECS No**		LQ8925000				**CAS No**		107-31-3					
N-Methylglucamine, 60% aqueous solution	2048	0	NI	0	R	0	NI	1	0	(3)	0	3			D	3
N-Methylglucamine solution (70% or less)	482		**RTECS No**		000000000				**CAS No**		6284-40-8					
2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less)	2397	0	NI	0	R	0	NI	2	2	3	0	1			FD	2
2-Methylglutaronitrile and 2-Ethylsuccinonitrile	3632		**RTECS No**						**CAS No**		4553-62-2					
Methyl heptyl ketone	988	3	NI	3	R	3	NI	0	0	NI	NI	NI			FED	NI
Methyl heptyl ketone	448		**RTECS No**		RA8225000				**CAS No**		821-55-6					
Methylbutynol	968	0	NI	0	NR	1	NI	1	1	3	0	2			D	2
2-Methyl-2-hydroxy-3-butyne	52		**RTECS No**		ES0810000				**CAS No**		115-19-5					
Methyl isobutyl ketone	971	1	NI	1	R	1	0	1	0	2	2	3			FED	3
Methyl isobutyl ketone	449		**RTECS No**		SA9275000				**CAS No**		108-10-1					
Methyl methacrylate	995	1	NI	1	R	2	NI	0	0	0	2	2	S		ED	2
Methyl methacrylate	450		**RTECS No**		OZ5075000				**CAS No**		80-62-6					
3-Methyl-3-methoxy butanol	996	1	NI	1	NR	0	NI	0	(0)	(2)	1	(2)			FD	2
3-Methyl-3-methoxybutanol	59		**RTECS No**						**CAS No**							
3-Methyl-3-methoxybutyl acetate	997	1	NI	1	NR	0	NI	0	(0)	NI	NI	NI			F	NI
3-Methyl-3-methoxybutyl acetate	60		**RTECS No**						**CAS No**							
Methyl naphthalenes	1999	4	NI	4	(NR)	(4)	NI	1	0	(2)	1	1		T	F	2
Methyl naphthalene (molten)	451		**RTECS No**						**CAS No**							
2-Methyl pentane	1000	3	NI	3	NI	4	NI	(0)	(0)	(2)	(2)	(2)			E	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
2-Methylpentane	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			D	0
2-Methyl-1,3-propanediol	2213		RTECS No						CAS No							
Methyl propyl ketone	1003	0	NI	0	R	0	NI	1	0	(2)	1	2			FED	2
Methyl propyl ketone	452		RTECS No		SA7875000				CAS No		107-87-9					
2-Methyl pyridine	1005	1	NI	1	R	1	NI	1	2	1	3A	3			D	3
2-Methylpyridine	55		RTECS No		TJ4900000				CAS No		109-06-8					
3-Methylpyridine	1006	1	NI	1	R	1	NI	1	2	2	3	3			D	3
3-Methylpyridine	61		RTECS No		TJ5000000				CAS No		108-99-6					
4-Methylpyridine	1007	1	NI	1	R	1	NI	1	2	2	3	3			D	3
4-Methylpyridine	63		RTECS No		UT5425000				CAS No		108-89-4					
N-Methylpyrrolidone	1008	0	NI	0	R	1	NI	0	0	2	1	2	R		D	3
N-Methyl-2-pyrrolidone	481		RTECS No		UY5790000				CAS No		872-50-4					
Methyl salicylate	86	2	NI	2	R	2	NI	1	1	(2)	2	1	R		SD	3
Methyl salicylate	453		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
alpha-Methylstyrene	107		RTECS No		WL5075300				CAS No		98-83-9					
3-(Methylthio) propionaldehyde	993	0	NI	0	R	3	1	1	1	2	2	3	NS	T	D	3
3-(methylthio)propionaldehyde	2368		RTECS No		UE2285000				CAS No		3268-49-3					
Silica slurry	1514	Inorg	0	0	Inorg	0	0	(0)	(0)	NI	(0)	(0)			S	0
Microsilica slurry	2507		RTECS No						CAS No		7631-86-9					
Molasses	1013	0	NI	0	R	0	NI	0	0	0	0	0			D	0
Molasses	462		RTECS No						CAS No							
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	2344	4	2	2	NR	2	0	0	0	(2)	2	2			Fp	2
Molybdenum polysulfide long chain alkyl dithiocarbamide complex	3108		RTECS No						CAS No							
Morpholine	1018	0	0	0	R	2	NI	1	2	2	3	3			D	3
Morpholine	463		RTECS No		QD6475000				CAS No		110-91-8					
Tetraethyl lead	1303	4	5	5	NR	5	NI	3	2	4	2	2	NR		S	3
Motor fuel anti-knock compound (containing lead alkyls)	464		RTECS No		TP4550000				CAS No		78-00-2					
Myrcene	1019	4	NI	4	R	4	1	0	0	(2)	2	NI			F	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Myrcene	465		RTECS No		RG5365000				CAS No		123-35-3					
[Nalco 5740S Antifoam]	2291	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI			NI	NI
[Nalco 5740S Antifoam]	492		RTECS No						CAS No							
Naphthalene	1	3	3	3	NR	4	1	1	0	(2)	1	1	C	T	S	3
Naphthalene (molten)	493		RTECS No		QJ0525000				CAS No		91-20-3					
Naphthalene sulphonic acid condensed with formaldehyde, sodium salt, solution	1020	0	1	1	(NR)	1	NI	0	(0)	(1)	0	1			D	1
Naphthalenesulphonic acid-Formaldehyde copolymer, sodium salt solution	494		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
Naphthenic acids	495		RTECS No		QK8750000				CAS No		1338-24-5					
Neodecanoic acid	1025	4	NI	4	NR	2	NI	0	0	(2)	0	2			Fp	2
Neodecanoic acid	496		RTECS No						CAS No		26896-20-8					
Acid mixtures (nitrating acid)	289	Inorg	NI	0	Inorg	(2)	NI	3	3	4	3C	3			D	3
Nitrating acid (mixture of sulphuric and nitric acids)	497		RTECS No						CAS No							
Nitric acid (90% or less)	1029	Inorg	NI	0	Inorg	2	NI	(3)	(1)	4	3C	3			D	3
Nitric acid (70% and over)	498		RTECS No		QU5775000				CAS No		7697-37-2					
Nitric acid (90% or less)	1029	Inorg	NI	0	Inorg	2	NI	(3)	(1)	4	3C	3			D	3
Nitric acid (less than 70%)	499		RTECS No		QU5775000				CAS No		7697-37-2					
Nitrilotriacetic acid,trisodium salt	1030	0	NI	0	R	1	0	1	(0)	0	1	1	CMR		D	3
Nitrilotriacetic acid, trisodium salt solution	500		RTECS No		MB8400000				CAS No		5094-31-3					
Mononitrobenzene	1017	1	1	1	R	3	(4)	(2)	2	2	1	1	CRT		SD	3
Nitrobenzene	501		RTECS No		DA6475000				CAS No		98-95-3					
Nitroethane	1037	0	NI	0	NR	2	NI	1	0	(2)	(0)	(1)			SD	2
Nitroethane	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			E	2
Nitroethane(80%)/ Nitropropane(20%)	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			FED	2
Nitroethane, 1-Nitropropane (each 15% or more) mixture	2212		RTECS No						CAS No							
2-Nitrophenol	1041	1	2	2	R	3	(2)	0	0	(1)	1	1			S	1
o-Nitrophenol (molten)	536		RTECS No		SM2100000				CAS No		88-75-5					
1-Nitropropane	1044	(0)	(1)	(1)	(NR)	(2)	NI	1	0	2	0	1			FED	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
1-Nitropropane	2747		**RTECS No**		TZ5075000				**CAS No**		108-03-2					
1- or 2- Nitropropane	2242	0	1	1	NR	1	NI	2	0	2	0	1	C		FED	3
1- or 2-Nitropropane	20		**RTECS No**						**CAS No**							
2-Nitropropane	1045	(0)	(1)	(1)	(NR)	(2)	NI	2	0	2	0	0	C		FED	3
2-Nitropropane	2748		**RTECS No**		TZ5250000				**CAS No**		79-46-9					
Nitropropane (60%) Nitroethane (40%) (mixture)	1046	0	1	1	NR	2	NI	1	0	2	0	1	C		FED	3
Nitropropane (60%)/Nitroethane (40%) mixture	504		**RTECS No**						**CAS No**							
o-Nitrotoluene	1049	2	2	2	NR	2	(1)	1	0	(2)	0	1	CMR		S	3
o-Nitrotoluene	2745		**RTECS No**		XT3150000				**CAS No**		88-72-2					
p-Nitrotoluene	1051	2	1	1	NR	3	0	1	0	(2)	0	1	R		S	3
p-Nitrotoluene	2746		**RTECS No**		XT3325000				**CAS No**		99-99-0					
o- or p-Nitrotoluenes	2241	2	2	2	NR	3	(1)	1	0	(2)	0	1	CMR		S	3
o- or p-Nitrotoluenes	532		**RTECS No**						**CAS No**							
Nonane	1054	4	NI	4	R	4	NI	0	0	1	0	0	A		FE	2
Nonane (all isomers)	506		**RTECS No**		RA6115000				**CAS No**		111-84-2					
Nonanoic acid	1055	3	NI	3	R	2	NI	0	0	(3)	2	3			F	3
Nonanoic acid (all isomers)	507		**RTECS No**		RA6650000				**CAS No**		112-05-0					
Palm oil (containing more than 15% and less than 30% free fatty acids)	2364	0	NI	0	R	0	NI	0	0	(2)	(2)	(2)			Fp	2
Non-edible industrial grade palm oil	3127		**RTECS No**						**CAS No**							
Nonene (all isomers)	2222	4	NI	4	NI	3	NI	0	0	0	1	1	A		FE	2
Nonene (all isomers)	508		**RTECS No**						**CAS No**							
1-Nonene	1060	4	NI	4	NI	3	NI	0	0	0	1	1	A		FE	2
1-Nonene	2680		**RTECS No**						**CAS No**		27215-95-8					
Nonyl acetate	1766	4	NI	4	NI	NI	NI	0	0	NI	NI	NI			F	NI
Nonyl acetate	509		**RTECS No**						**CAS No**		143-13-5					
Isononanol	1059	3	NI	3	NR	3	1	0	0	(2)	2	2			Fp	2
Nonyl alcohol (all isomers)	510		**RTECS No**		RH1400000				**CAS No**		2430-22-0					
Nonyl methacrylate monomer	1061	5	NI	5	R	3	NI	(0)	(0)	(1)	(1)	(1)			F	1
Nonyl methacrylate monomer	511		**RTECS No**						**CAS No**		2696-43-7					
Nonyl phenol	1062	5	4	4	NR	5	3	1	0	(3)	3	3			FD	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Nonylphenol	512		**RTECS No**		SM5600000				**CAS No**		25154-52-3					
Nonyl(C6-C12)phenol poly(4-12)ethoxylate	1063	4	NI	4	NR	3	1	0	0	(2)	2	1			D	2
Nonylphenol poly(4+)ethoxylate	513		**RTECS No**						**CAS No**							
Octamethylcyclotetrasiloxane	2398	5	5	5	NR	0	3	0	0	0	0	0			F	1
Octamethylcyclotetrasiloxane	3633		**RTECS No**						**CAS No**							
Octane	1072	5	NI	5	(R)	4	NI	(0)	(0)	0	0	0	A		FE	2
Octane (all isomers)	538		**RTECS No**		RG8400000				**CAS No**		111-65-9					
Octanoic acid (Caprylic acid)	1074	3	NI	3	R	1	NI	0	0	(3)	3	3			F	3
Octanoic acid (all isomers)	539		**RTECS No**		RH0175000				**CAS No**		134-07-2					
1-Octanol	1075	3	NI	3	R	2	0	1	0	(2)	2	2			Fp	2
Octanol (all isomers)	540		**RTECS No**		RH6550000				**CAS No**		111-87-5					
1-Octanol	1075	3	NI	3	R	2	0	1	0	(2)	2	2			Fp	2
1-Octanol	2676		**RTECS No**		RH6550000				**CAS No**		111-87-5					
Isooctanol	1076	3	NI	3	R	2	0	1	0	(2)	2	(2)			F	2
iso-Octanol	2675		**RTECS No**		NS7700000				**CAS No**		26952-21-6					
Octene (all isomers)	1079	4	NI	4	NR	3	NI	0	0	0	2	1	A		FE	2
Octene (all isomers)	541		**RTECS No**						**CAS No**							
Octyl acetate	1080	3	NI	3	R	2	NI	0	0	(1)	1	NI			FD	1
n-Octyl acetate	483		**RTECS No**		AJ1400000				**CAS No**		112-14-1					
Isooctaldehyde	1071	2	NI	2	NI	3	NI	0	0	(1)	1	1			F	1
Octyl aldehydes	542		**RTECS No**						**CAS No**		63885-09-6					
Octyl decyl adipate	1082	0	NI	0	(R)	(0)	(0)	(0)	(0)	(1)	(1)	(1)			Fp	2
Octyl decyl adipate	543		**RTECS No**						**CAS No**		110-29-2					
Olefin/Alkyl ester copolymer (molecular weight 2000+) (LOA)	1965	NI	NI	0	NR	0	NI	0	0	(0)	0	0			Fp	2
Olefin-Alkyl ester copolymer (molecular weight 2000+)	546		**RTECS No**						**CAS No**							
Olefin mixtures (C5-C7)	2243	3	NI	3	R	3	NI	(0)	(0)	(1)	(2)	(1)			E	2
Olefin mixtures (C5-C7)	545		**RTECS No**						**CAS No**							
Olefin mixtures (C5-C15)	2321	(5)	NI	(5)	NR	(4)	NI	(0)	(0)	(2)	(2)	(1)	A		FE	2
Olefin mixtures (C5-C15)	544		**RTECS No**						**CAS No**							
Olefin mixture (C7-C9)	2385	5	4	4	NR	4	NI	(0)	0	0	2	1	A		E	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Olefin Mixtures (C7-C9) C8 rich, stabilized	3548		**RTECS No**						**CAS No**		97593-00-5					
Olefins C13 and above, all isomers	2028	5	NI	5	NR	0	NI	0	0	(0)	0	0			Fp	2
Olefins (C13+, all isomers)	547		**RTECS No**						**CAS No**							
alpha-Olefins (C6-C18),mixture	2030	(5)	NI	(5)	NR	(4)	NI	(0)	(0)	(2)	(2)	(1)	A		FE	2
alpha-Olefins (C6-C18) mixtures	108		**RTECS No**						**CAS No**							
Oleic acid	1089	0	NI	0	R	0	NI	0	1	(2)	1	1			Fp	2
Oleic acid	548		**RTECS No**		RG2275000				**CAS No**		112-80-1					
Sulphuric acid	1280	0	NI	0	Inorg	2	NI	(3)	(3)	4	3C	3	C		D	3
Oleum	549		**RTECS No**		WS5600000				**CAS No**		7664-93-9					
Oleylamine	1862	0	NI	0	NR	4	NI	1	(1)	(3)	3B	3			Fp	3
Oleylamine	550		**RTECS No**						**CAS No**							
Olive oil	1090	0	NI	0	R	(2)	NI	(0)	(0)	(1)	1	1			Fp	2
Olive oil	2771		**RTECS No**		RK4300000				**CAS No**		8001-25-0					
Orange juice	2375	0	0	0	R	0	0	0	0	(0)	0	0			D	0
Orange juice	3151		**RTECS No**						**CAS No**							
Orange juice (not concentrated)	2382	0	0	0	R	0	0	0	0	(0)	0	0			D	0
Orange juice (not concentrated)	3425		**RTECS No**						**CAS No**							
[Heavy Oxo Fraction]	2266	5	2	(2)	NR	1	NI	0	0	(1)	1	1			FE	2
Oxygenated aliphatic hydrocarbon mixture	2825		**RTECS No**						**CAS No**							
Palm acid oil	2307	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	0	1			Fp	2
Palm acid oil	3037		**RTECS No**						**CAS No**							
Palm fatty acid distillate	2310	NI	NI	(0)	(R)	(0)	NI	0	(0)	(1)	0	1			Fp	2
Palm fatty acid distillate	3040		**RTECS No**						**CAS No**							
Palm nut oil fatty acid	1095	0	NI	0	R	(3)	NI	0	0	(2)	1	2			Fp	2
Palm kernel acid oil	553		**RTECS No**						**CAS No**							
Palm kernel fatty acid distillate	2335	(0)	0	0	R	(3)	NI	0	(0)	(2)	1	2			Fp	2
Palm kernel fatty acid distillate	3111		**RTECS No**						**CAS No**							
Palm nut oil	1094	0	NI	0	R	1	NI	(0)	(0)	(1)	(0)	(1)			Fp	2
Palm kernel oil	2766		**RTECS No**						**CAS No**							
Palm kernel olein (containing less than 5 % free fatty acids)	2308	(0)	NI	(0)	(R)	1	NI	(0)	(0)	(0)	(0)	(0)			Fp	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Palm kernel olein	3038		**RTECS No**						**CAS No**							
Palm kernel stearin (containing less than 5% free fatty acids)	2309	0	(0)	(0)	(R)	0	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Palm kernel stearin	3039		**RTECS No**						**CAS No**							
Palm Mid Fraction	2363	(0)	NI	(0)	(R)	(0)	NI	0	0	(0)	(0)	(0)			Fp	2
Palm mid-fraction	3126		**RTECS No**						**CAS No**							
Palm oil (containing less than 15% free fatty acids)	2249	0	NI	0	R	0	NI	0	(0)	(0)	0	0			Fp	2
Palm oil	2764		**RTECS No**						**CAS No**							
Palm oil fatty acid methyl ester	1097	0	NI	0	R	0	NI	0	0	0	0	1			Fp	2
Palm oil fatty acid methyl ester	554		**RTECS No**						**CAS No**							
Palm olein	2250	0	NI	0	R	0	NI	0	(0)	(0)	0	0			Fp	2
Palm olein	2765		**RTECS No**						**CAS No**							
Palm stearin	2251	0	NI	0	R	0	NI	0	(0)	(0)	0	0			Fp	2
Palm stearin	555		**RTECS No**						**CAS No**							
Paraffin wax	1086	0	NI	0	R	0	NI	(0)	(0)	(1)	1	1			Fp	2
Paraffin wax	556		**RTECS No**		RV0350000				**CAS No**		8002-74-2					
Paraldehyde	1098	0	0	0	NR	0	NI	1	0	0	1	3			D	3
Paraldehyde	557		**RTECS No**		YK0525000				**CAS No**		123-63-7					
Pyridine bases	2131	1	NI	1	R	2	NI	2	1	(3)	3B	3			FED	3
Paraldehyde-ammonia reaction product	1989		**RTECS No**						**CAS No**							
Pentachloroethane	1099	3	2	2	NI	3	1	1	(1)	1	(1)	(1)	CT		S	3
Pentachloroethane	558		**RTECS No**		KI6300000				**CAS No**		76-01-7					
1,3-Pentadiene	1102	2	NI	2	NR	2	NI	0	0	0	1	(2)			E	2
1,3-Pentadiene	14		**RTECS No**		RZ2464000				**CAS No**		504-60-9					
1,3-Pentadiene (greater than 50%), cyclopentene and isomers, mixtures.	2390	NI	NI	(3)	(NR)	(3)	NI	(2)	(1)	(3)	(2)	(2)	CMR		E	3
1,3-Pentadiene concentrate	3560		**RTECS No**						**CAS No**							
Pentaethylene hexamine	1103	0	NI	0	NI	4	NI	1	(2)	(3)	3	(3)	S		D	3
Pentaethylenehexamine	560		**RTECS No**		RZ2680000				**CAS No**		4067-16-7					
Pentane	1105	3	NI	3	R	3	NI	0	0	0	1	1			E	2
Pentane (all isomers)	561		**RTECS No**		RZ9450000				**CAS No**		109-66-0					
Pentanoic acid	1109	1	NI	1	NI	2	NI	1	2	(3)	3	3			FD	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Pentanoic acid	562		**RTECS No**		YV6100000				**CAS No**		109-52-4					
Pentanoic acid (64%)/2-methyl butyric acid (36%) mixture	2144	(1)	NI	(1)	NI	(2)	NI	(1)	(2)	(3)	3	(3)			FD	3
n-Pentanoic acid (64%)/2-Methyl butyric acid (36%) mixture	2211		**RTECS No**						**CAS No**							
Pentene (all isomers)	1992	2	NI	2	NI	(2)	NI	(0)	(0)	(0)	(0)	(1)			E	2
Pentene (all isomers)	563		**RTECS No**						**CAS No**							
1-Pentene	1114	2	NI	2	NI	(2)	NI	(0)	(0)	0	(0)	(1)			E	2
1-Pentene	2679		**RTECS No**						**CAS No**		109-67-1					
2-Pentene	1115	2	NI	2	NI	2	NI	(0)	(0)	(0)	(0)	(1)			E	2
2-Pentene	2678		**RTECS No**						**CAS No**		109-68-2					
Isopentene	1113	2	NI	2	NI	2	NI	(0)	(0)	(0)	(0)	(1)			E	2
iso-Pentene	2677		**RTECS No**		EM7600000				**CAS No**		563-45-1					
Amyl propionate	1484	2	NI	2	R	2	NI	0	0	(2)	2	1			F	2
n-Pentyl propionate	484		**RTECS No**						**CAS No**		624-54-4					
1,1,2,2-Tetrachloroethylene	1295	3	2	2	NR	(3)	2	0	0	0	2	1	C		S	3
Perchloroethylene	564		**RTECS No**		KX3850000				**CAS No**		127-18-4					
Petrolatum	2244	0	NI	0	NR	0	NI	0	0	2	1	1			Fp	2
Petrolatum	565		**RTECS No**						**CAS No**							
Phenol	1124	1	2	2	R	3	0	2	2	(3)	3	3		NT	S	3
Phenol	566		**RTECS No**		SJ3325000				**CAS No**		108-95-2					
Phenylxylylethane	1135	5	4	4	NR	(2)	NI	1	0	(1)	(0)	0			F	1
1-Phenyl-1-xylyl ethane	23		**RTECS No**		CZ7300000				**CAS No**		40766-31-2					
Phosphate esters, alkyl(C12-C14)amine (LOA)	1854	2	NI	2	NR	3	NI	0	(0)	(2)	1	2			FD	2
Phosphate esters, alkyl (C12-C14) amine	1345		**RTECS No**						**CAS No**							
Phosphoric acid	1138	0	NI	0	Inorg	1	NI	(3)	(3)	3	3	3			D	3
Phosphoric acid	567		**RTECS No**		TB6300000				**CAS No**		7664-38-2					
Phosphorus (elemental yellow)	1139	Inorg	(3)	(3)	Inorg	6	4	0	0	0	2	1			S	2
Phosphorus, yellow or white	568		**RTECS No**		TH3500000				**CAS No**		7732-14-0					
Phthalic anhydride (molten)	1146	1	NI	1	R	2	0	1	0	(3)	1	3	S		S	3
Phthalic anhydride (molten)	569		**RTECS No**		TI3150000				**CAS No**		85-44-9					
alpha-Pinene	40	4	NI	4	NI	4	NI	0	0	0	1	(1)	S	T	F	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
alpha-Pinene	109		**RTECS No**		DT7000000				**CAS No**		80-56-8					
beta-Pinene	41	4	NI	4	NI	4	NI	0	0	0	1	(1)	S	NT	F	3
beta-Pinene	141		**RTECS No**		DT5078500				**CAS No**		1330-16-1					
Pine oil	1148	4	NI	4	NR	4	NI	0	0	(1)	(1)	(1)	S	(T)	Fp	3
Pine oil	570		**RTECS No**		TK5100000				**CAS No**		8002-09-3					
Polyacrylic acid (40% solution)	2302	(2)	NI	(2)	NR	1	NI	0	0	(1)	1	1			D	1
Polyacrylic acid solution (40% or less)	2709		**RTECS No**						**CAS No**							
Poly(C18-C22)alkyl acrylate in xylene	1151	(3)	NI	(3)	NR	2	NI	0	0	(2)	2	1			Fp	2
Polyalkyl (C18-C22) acrylate in xylene	580		**RTECS No**						**CAS No**							
Polyalkylalkenaminesuccinimide, molybdenum oxysulphide	2379	NI	0	0	NR	0	NI	0	0	(0)	0	0			Fp	2
Polyalkylalkenaminesuccinimide, molybdenum oxysulphide	3422		**RTECS No**						**CAS No**							
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	1152	1	NI	1	R	1	0	0	0	0	2	2			D	2
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	576		**RTECS No**						**CAS No**							
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate	2254	1	NI	1	NR	2	1	0	0	0	2	2			D	2
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate	575		**RTECS No**						**CAS No**							
Poly alkyl methacrylate (C1-C20) (LOA)	1984	(5)	NI	(5)	NR	0	NI	0	0	0	0	0			Fp	2
Polyalkyl (C10-C20) methacrylate	2189		**RTECS No**						**CAS No**							
Poly alkyl(C10-C18) methacrylate/ethylene-propylene copolymeer mixture	2201	0	0	0	NR	0	0	0	0	(1)	1	1	A		Fp	3
Polyalkyl (C10-C18) methacrylate/ethylene-propylene copolymer mixture	2188		**RTECS No**						**CAS No**							
Polyaluminium chloride (sol.)	1136	Inorg	0	0	Inorg	0	NI	(0)	(0)	(1)	(0)	(1)			D	1
Polyaluminium chloride solution	584		**RTECS No**		BD0549500				**CAS No**		1327-41-9					
Polybutene	1154	0	NI	0	(NR)	(0)	(0)	(0)	(0)	(0)	(0)	(0)			Fp	2
Polybutene	585		**RTECS No**		EM9032000				**CAS No**		9003-29-6					
Polybutenylsuccinimide in oil	2055	5	NI	5	NR	0	NI	(0)	(0)	(0)	0	(0)			Fp	2
Polybutenyl succinimide	586		**RTECS No**						**CAS No**							
Poly(2+)cyclic aromatics	2246	4	4	4	NR	(4)	NI	(1)	(1)	(2)	(1)	(1)	CM		S	3
Poly(2+)cyclic aromatics	574		**RTECS No**						**CAS No**							
Polyether (molecular weight 2000+) (LOA)	1975	0	NI	0	NR	1	NI	0	(0)	(0)	0	0			Fp	2
Polyether (molecular weight 1350+)	587		**RTECS No**						**CAS No**							
Diethylene glycol initiated polyoxypropylene diamine	2353	0	NI	0	NR	2	NI	0	0	(3)	3B	(3)			D	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Polyetheramine	2946		**RTECS No**						**CAS No**							
Polyether, borated	1863	0	NI	0	NR	3	1	0	(0)	(1)	1	0			D	1
Polyether, borated	572		**RTECS No**						**CAS No**							
Polyethylene glycol	1157	0	NI	0	NR	0	NI	0	0	0	1	1			D	1
Polyethylene glycol	589		**RTECS No**		TQ3500000				**CAS No**		25322-68-3					
Polyethylene glycol dimethyl ether	1158	0	NI	0	NR	0	NI	0	0	(1)	1	(1)			D	1
Polyethylene glycol dimethyl ether	590		**RTECS No**		MC9630000				**CAS No**		24991-55-7					
Polyethylene polyamines	2367	0	NI	0	NR	3	0	1	0	(3)	2	(3)	S		D	0
Polyethylene polyamines	3131		**RTECS No**						**CAS No**							
Polyethylene amines / paraffin mixtures	1991	(5)	NI	(5)	NR	3	0	0	(1)	(3)	(2)	(3)	S		Fp	0
Polyethylene polyamines (more than 50% C5 -C20 paraffin oil)	591		**RTECS No**						**CAS No**							
Polyferric sulphate solution	338	Inorg	0	0	Inorg	(2)	NI	1	(1)	(3)	3	(3)			D	3
Polyferric sulphate solution	592		**RTECS No**						**CAS No**							
Polyglycerine, sodium salt, solution	1874	0	NI	0	R	0	NI	0	0	(3)	(2)	3			D	3
Polyglycerin, sodium salt solution (containing less than 3% sodium hydroxide)	593		**RTECS No**						**CAS No**							
Polyglycerol	1511	NI	NI	NI	NI	NI	NI	0	(0)	(0)	(0)	(0)			D	0
Polyglycerol	594		**RTECS No**						**CAS No**							
Poly (iminoethylene)-graft-N-poly (ethyleneoxy) solution (90% or less)	2287	0	0	0	NR	0	NI	0	0	(1)	0	1			D	1
Poly(iminoethylene)-graft-N-poly(ethyleneoxy) solution (90% or less)	2537		**RTECS No**						**CAS No**							
Polyisobutenamine in aliphatic (C10-C14) solvent	2192	0	0	0	NR	2	NI	0	(0)	(2)	2	1			FED	2
Polyisobutenamine in aliphatic (C10-C14) solvent	2374		**RTECS No**						**CAS No**							
Polyisobutenyl anhydride adduct	2127	0	NI	0	NR	0	NI	0	0	(1)	0	1			FD	1
Polyisobutenyl anhydride adduct	2256		**RTECS No**						**CAS No**							
Poly(4+)isobutylene	2264	0	NI	0	NR	0	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Poly(4+)isobutylene	578		**RTECS No**						**CAS No**							
Polymethylene polyphenyl isocyanate	1153	NI	(2)	(2)	NR	0	0	0	0	(2)	2	2	S		S	2
Polymethylene polyphenyl isocyanate	595		**RTECS No**		TR0350000				**CAS No**		9016-87-9					
Polyolefin (molecular weight 300+) (LOA)	1968	0	NI	0	NR	0	NI	0	0	0	0	0			Fp	2
Polyolefin (molecular weight 300+)	596		**RTECS No**						**CAS No**							
Polyolefinamide alkene(C16+)amine (LOA)	2104	5	NI	5	NR	0	NI	0	0	(1)	1	(1)			Fp	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Polyolefin amide alkeneamine (C17+)	597		**RTECS No**						**CAS No**							
Polyolefin amide alkeneamine (C28+) (LOA)	1971	0	NI	0	NR	0	NI	0	0	(0)	1	(1)			NI	1
Polyolefin amide alkeneamine (C28+)	598		**RTECS No**						**CAS No**							
Polyolefin amide alkeneamine borate (C28-C250) (LOA)	1970	0	NI	0	NR	0	NI	0	0	(0)	0	(0)			Fp	2
Polyolefin amide alkeneamine borate (C28-C250)	600		**RTECS No**						**CAS No**							
Polyolefin amide alkeneamine/molybden oxysulphide mi	2256	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI			NI	NI
Polyolefin amide alkeneamine/molybdenum oxysulphide mixture	603		**RTECS No**						**CAS No**							
Polyolefin amide alkylene amine polyol	1989	0	NI	0	NR	0	NI	0	0	(0)	0	0	S		Fp	3
Polyolefin amide alkeneamine polyol	602		**RTECS No**						**CAS No**							
Poly (17+) olefin amine	2049	0	NI	0	NR	2	NI	0	(0)	(1)	(1)	(1)			Fp	2
Poly (17+) olefin amine	571		**RTECS No**						**CAS No**		98761-78-5					
Polyolefinamine (C28-C250) (LOA)	2107	0	NI	0	NR	2	NI	0	(0)	(2)	2	(1)			Fp	2
Polyolefinamine (C28-C250)	609		**RTECS No**						**CAS No**							
Polyolefinamine (C28-C250) (LOA)	2107	0	NI	0	NR	2	NI	0	(0)	(2)	2	(1)			Fp	2
Polyolefinamine in alkyl (C2-C4) benzenes	610		**RTECS No**						**CAS No**							
Polyolefinamine (C28-C250) (LOA)	2107	0	NI	0	NR	2	NI	0	(0)	(2)	2	(1)			Fp	2
Polyolefinamine in aromatic solvent	611		**RTECS No**						**CAS No**							
Polyolefin aminoester salt	2095	0	NI	0	NR	1	NI	0	0	(1)	1	(1)			Fp	2
Polyolefin aminoester salts (molecular weight 2000+)	604		**RTECS No**						**CAS No**							
Lubrizol polyolefin anhydride	1865	0	NI	0	NR	1	NI	0	0	(2)	1	(2)			Fp	2
Polyolefin anhydride	605		**RTECS No**						**CAS No**							
Polyolefin ester (C28-C250) (LOA)	1969	0	NI	0	NR	0	NI	0	0	(0)	0	0			Fp	2
Polyolefin ester (C28-C250)	606		**RTECS No**						**CAS No**							
Polyolefin phenolic amine (C28-C250) (LOA)	1980	0	NI	0	NI	0	NI	0	0	(1)	(1)	(1)			Fp	2
Polyolefin phenolic amine (C28-C250)	607		**RTECS No**						**CAS No**							
Polyolefin phosphoro sulphide - barium derivative (C28-C250) (LOA)	1976	0	NI	0	NI	2	NI	0	(0)	(0)	(0)	(0)			S	0
Polyolefin phosphorosulphide, barium derivative (C28-C250)	608		**RTECS No**						**CAS No**							
Poly(ethylene glycol) methylbutenyl ether (MW >1000)	2395	NI	0	0	R	1	NI	0	0	(0)	0	0			D	0
Poly(oxyalkylene)alkenyl ether (MW>1,000)	3501		**RTECS No**						**CAS No**							
Polyoxyethylene sorbitan monooleate	1442	3	NI	3	NI	(3)	NI	0	(0)	(1)	0	1			D	1

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Poly(20)oxyethylene sorbitan monooleate	577		**RTECS No**		WG2932500				**CAS No**		9005-65-6					
[Jeffamine D-230] / Polyoxypropylene diamine	2352	1	NI	1	NR	1	NI	0	0	(3)	3	3			D	3
Polyoxypropylene diamine	3112		**RTECS No**						**CAS No**							
Polypropylene	1512	0	NI	0	NR	(0)	NI	(0)	(0)	(0)	(0)	(0)			F	1
Poly(5+)propylene	579		**RTECS No**		UD1842000				**CAS No**		9003-07-0					
Polypropylene glycol	1159	0	NI	0	(NR)	1	NI	1	0	(1)	1	1			D	1
Polypropylene glycol	612		**RTECS No**		TR6125000				**CAS No**		25322-69-4					
Polysiloxane	1161	NI	4	4	NI	2	NI	0	(0)	(0)	0	0			F	1
Polysiloxane	613		**RTECS No**						**CAS No**							
Poly (tetramethylene) ether glycol (mw 600-3000)	2147	2	NI	2	NR	3	NI	0	0	(0)	0	(0)			FD	0
Poly(tetramethylene ether) glycol (mw 600-3000)	2540		**RTECS No**						**CAS No**							
Potassium chloride solution	1513	0	0	0	Inorg	1	0	0	(0)	(0)	0	0			D	0
Potassium chloride solution	614		**RTECS No**		TS8050000				**CAS No**		7447-40-7					
Potassium chloride brine (less than 26%)	2345	0	0	0	Inorg	0	0	0	(0)	(0)	0	0			D	0
Potassium chloride solution (less than 26%)	3109		**RTECS No**						**CAS No**							
Potassium formate solution (75% or more)	2121	0	NI	0	R	0	NI	(0)	(0)	(2)	2	2			D	2
Potassium formate solutions	615		**RTECS No**		LQ9625000				**CAS No**		590-29-4					
Potassium hydroxide (sol.)	1171	Inorg	0	0	Inorg	2	NI	2	(2)	(3)	3C	3			D	3
Potassium hydroxide solution	616		**RTECS No**		TT2100000				**CAS No**		1310-58-3					
Potassium oleate	1497	3	NI	3	R	4	NI	(0)	(0)	(1)	1	1			FD	1
Potassium oleate	617		**RTECS No**		RK1150000				**CAS No**		143-18-0					
Polyolefin acid, potassium salt	1895	NI	NI	NI	NR	0	NI	0	0	(0)	0	0			NI	0
Potassium salt of polyolefin acid	2199		**RTECS No**						**CAS No**							
Potassium thiosulphate solution (50% or less)	2152	Inorg	0	0	Inorg	2	NI	0	0	(2)	2	(2)			D	2
Potassium thiosulphate (50% or less)	2335		**RTECS No**						**CAS No**							
Propanolamine	1183	0	NI	0	R	2	NI	0	1	(3)	3	3			D	3
n-Propanolamine	485		**RTECS No**		UA5600000				**CAS No**		156-87-6					
beta-Propiolactone	1184	0	NI	0	R	(2)	NI	2	(2)	4	3B	3	CM		D	3
beta-Propiolactone	142		**RTECS No**		RQ7350000				**CAS No**		57-57-8					
Propionaldehyde	1185	0	NI	0	R	2	NI	1	0	1	2	2			DE	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Propionaldehyde	619		**RTECS No**		UE0350000				**CAS No**		123-38-6					
Propionic acid	1186	0	NI	0	R	2	NI	0	0	(3)	3B	3			D	3
Propionic acid	620		**RTECS No**		UE5950000				**CAS No**		79-09-4					
Propionic anhydride	1187	0	NI	0	R	2	NI	0	0	(3)	2	3			FD	3
Propionic anhydride	621		**RTECS No**		UF9100000				**CAS No**		123-62-6					
Propionitrile	1188	0	NI	0	NI	0	NI	3	3	4	1	2	R		D	3
Propionitrile	622		**RTECS No**		UF9625000				**CAS No**		107-12-0					
Propyl acetate	1191	1	NI	1	R	2	NI	0	0	0	1	1			ED	1
n-Propyl acetate	487		**RTECS No**		AJ3675000				**CAS No**		109-60-4					
Propanol	1180	0	NI	0	R	0	NI	1	0	0	1	2	R		D	3
n-Propyl alcohol	488		**RTECS No**		UH8225000				**CAS No**		71-23-8					
Propylamine	1194	0	NI	0	NI	1	NI	2	2	3	3	3			DE	3
n-Propylamine	490		**RTECS No**		UH9100000				**CAS No**		107-10-8					
Propyl benzene	1196	NI	NI	NI	NI	3	NI	NI	NI	NI	NI	NI		(T)	FE	NI
Propylbenzene	2686		**RTECS No**		DA8750000				**CAS No**		103-65-1					
Isopropyl benzene	1197	3	2	2	R	3	NI	0	0	0	2	1			FE	2
Propylbenzene (all isomers)	623		**RTECS No**		GR8575000				**CAS No**		98-82-8					
Propyl chloride	1198	2	NI	2	NI	1	NI	0	NI	NI	NI	NI			FED	2
n-Propyl chloride	489		**RTECS No**		TX4400000				**CAS No**		540-54-5					
Ethylene-propylene copolymer	1508	NI	NI	NI	NI	NI	NI	(0)	(0)	(0)	(0)	(0)			NI	0
Propylene-Butylene copolymer	633		**RTECS No**						**CAS No**							
Propylene carbonate	2056	0	NI	0	R	0	NI	0	0	(3)	2	3			D	3
Propylene carbonate	624		**RTECS No**		FF9650000				**CAS No**		108-32-7					
Propylene dimer	1201	3	NI	3	R	3	NI	NI	NI	NI	NI	NI			E	2
Propylene dimer	625		**RTECS No**						**CAS No**							
1,2-Propylene glycol	1202	0	NI	0	R	0	0	0	0	(1)	0	1			D	1
Propylene glycol	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			D	1
Propylene glycol methyl ether acetate	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			D	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Propylene glycol monoalkyl ether	628		**RTECS No**						**CAS No**							
Propylene glycol phenyl ether	2057	1	NI	1	NI	1	NI	0	0	(1)	(1)	(1)			SD	1
Propylene glycol phenyl ether	629		**RTECS No**		UB8886000				**CAS No**		4169-04-4					
Propylene oxide	76	0	NI	0	R	2	NI	1	1	2	2	3	CMR		DE	3
Propylene oxide	630		**RTECS No**		TZ2975000				**CAS No**		75-56-9					
Propylene tetramer	2255	NI	4	4	NR	(4)	NI	(0)	(0)	(1)	(1)	(1)			F	1
Propylene tetramer	631		**RTECS No**						**CAS No**							
Propylene trimer	1207	5	4	4	NR	3	2	(0)	(0)	(1)	(1)	(1)			FE	2
Propylene trimer	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
Pyridine	634		**RTECS No**		UR8400000				**CAS No**		110-86-1					
Pyrolysis gasoline	2271	(4)	(3)	(3)	(R)	(3)	(1)	1	0	(2)	2	2	TCM		FE	3
Pyrolysis gasoline (containing benzene)	1990		**RTECS No**						**CAS No**							
Rapeseed oil (high erucic acid; containing less than 4% free fatty acids)	2315	0	NI	0	R	(2)	NI	(0)	(0)	(0)	(1)	(1)			Fp	2
Rapeseed oil	3045		**RTECS No**						**CAS No**							
Rapeseed oil (Low erucic acid containing less than 4% free fatty acids)	2296	0	NI	0	R	(2)	NI	0	0	0	(1)	(1)			Fp	2
Rapeseed oil (low erucic acid containing less than 4% free fatty acids)	2956		**RTECS No**						**CAS No**							
Rape seed oil fatty acid, methyl ester	2209	0	0	0	R	0	NI	0	(0)	(1)	1	1			Fp	2
Rape seed oil fatty acid methyl esters	2576		**RTECS No**						**CAS No**							
Distilled Resin Oil, DRO	2299	(3)	NI	(3)	(NR)	(3)	NI	0	0	(2)	2	1	MN		FE	3
Resin oil, distilled	2958		**RTECS No**						**CAS No**							
Rice bran oil (containing less than 15% of free fatty acids)	2312	(0)	NI	(0)	(R)	(0)	NI	0	(0)	(1)	0	1			Fp	2
Rice bran oil	3043		**RTECS No**						**CAS No**							
Rosin	1219	3	NI	3	NR	3	NI	0	0	2	(1)	1	S		S	2
Rosin	635		**RTECS No**						**CAS No**		8050-09-7					
Rosin soap (disproportionated solution)	1220	3	NI	3	NR	3	NI	0	NI	NI	NI	NI			S	NI
Rosin soap (disproportionated) solution	636		**RTECS No**						**CAS No**							
Safflower oil (containing less than 5% free fatty acids)	1222	(0)	NI	(0)	(R)	(0)	NI	(0)	(0)	(1)	1	1			Fp	2
Safflower oil	3041		**RTECS No**		VN2230000				**CAS No**		8001-23-8					
Shale oil	2401	(5)	NI	(5)	NR	3	0	0	0	(2)	2	2	CS		Fp	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Shale oil	3636		**RTECS No**						**CAS No**							
Shea butter (containing less than 15% free fatty acids)	2311	(0)	NI	(0)	NR	(0)	NI	(0)	(0)	(1)	(0)	(1)			Fp	2
Shea butter	3042		**RTECS No**						**CAS No**							
Sodium acetate	1498	0	NI	0	R	0	NI	0	0	0	1	1			D	1
Sodium acetate solutions	639		**RTECS No**		AJ4375000				**CAS No**		127-09-3					
Alkane (C14-C17) sulphonic acid, sodium salt	334	2	2	2	R	3	1	0	0	(2)	2	2			D	2
Sodium alkyl (C14-C17) sulphonates (60-65% solution)	1153		**RTECS No**						**CAS No**							
Sodium aluminate (solution)	1234	Inorg	0	0	Inorg	NI	NI	(0)	(0)	(3)	(3)	(3)			D	3
Sodium aluminate solution	641		**RTECS No**		BD1600000				**CAS No**		11138-49-1					
Sodium aluminosilicate slurry	1235	Inorg	0	0	Inorg	1	0	0	0	0	1	1			S	1
Sodium aluminosilicate slurry	643		**RTECS No**						**CAS No**		1344-00-9					
Sodium benzoate	1475	0	NI	0	R	1	NI	0	(0)	(1)	0	1			D	1
Sodium benzoate	644		**RTECS No**		DH6650000				**CAS No**		532-32-1					
Sodium bicarbonate solution (less than 10%)	2386	0	NI	0	Inorg	0	0	0	0	(0)	0	0			D	0
Sodium bicarbonate solution (less than 10%)	3558		**RTECS No**						**CAS No**		144-55-8					
Sodium borohydride/sodium hydroxide mixture (soln.)	1239	Inorg	0	0	Inorg	2	NI	(2)	(1)	(3)	(3)	(3)			D	3
Sodium borohydride (15% or less)/Sodium hydroxide solution	645		**RTECS No**						**CAS No**							
Sodium bromide solution (less than 50%)	2387	0	NI	0	Inorg	0	0	0	0	(1)	0	1	R		D	3
Sodium bromide solution (less than 50%)	3410		**RTECS No**		VZ 315000				**CAS No**		7647-15-6					
Sodium carbonate	1243	Inorg	0	0	Inorg	1	NI	0	0	3	1	2			SD	2
Sodium carbonate solution	646		**RTECS No**		VZ4050000				**CAS No**		497-19-8					
Sodium chlorate solid and solutions (50% or less)	1244	Inorg	0	0	Inorg	1	NI	1	0	(2)	1	1	S		D	2
Sodium chlorate solution (50% or less)	647		**RTECS No**		FO0525000				**CAS No**		7775-09-9					
Sodium dichromate solution	487	Inorg	0	0	Inorg	4	1	2	2	4	2	3	CMS		D	3
Sodium dichromate solution (70% or less)	649		**RTECS No**		HX7700000				**CAS No**		10588-01-9					
Sodium hydrogen sulphide (6% or less)/sodium carbonate (3% or less)	2262	0	NI	0	Inorg	1	NI	(0)	(0)	(1)	(1)	(1)			D	1
Sodium hydrogen sulphide (6% or less)/Sodium carbonate (3% or less) solution	650		**RTECS No**						**CAS No**							
Sodium hydrogen sulphite,solutions	1251	Inorg	0	0	Inorg	1	NI	0	(0)	(0)	0	0			D	0
Sodium hydrogen sulphite solution (45% or less)	651		**RTECS No**		VZ2000000				**CAS No**		7631-90-5					
Sodium hydrogen sulphide/Ammonium sulphide(mixture)	1253	Inorg	0	0	Inorg	3	NI	1	1	0	2	2			D	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Sodium hydrosulphide/Ammonium sulphide solution	653		**RTECS No**						**CAS No**							
Sodium hydrogen sulphide,solutions	1252	Inorg	0	0	Inorg	1	NI	1	1	1	2	2			D	2
Sodium hydrosulphide solution (45% or less)	652		**RTECS No**		WE1900000				**CAS No**		16721-80-5					
Sodium hydroxide	1254	Inorg	0	0	Inorg	2	NI	1	1	(3)	3C	3			D	3
Sodium hydroxide solution	654		**RTECS No**		WB4900000				**CAS No**		1310-73-2					
Sodium hypochlorite solutions containing 20% and less but more than 2% NaOCl	1256	Inorg	0	0	Inorg	(4)	(1)	0	0	1	3	3	S		D	3
Sodium hypochlorite solution (15% or less)	2785		**RTECS No**		NH3486300				**CAS No**		7681-52-9					
Sodium hypochlorite solutions containing more than 20% Na0Cl	1255	Inorg	0	0	Inorg	5	2	0	0	1	3	3	S		D	3
Sodium hypochlorite solution (Full strength solution)	655		**RTECS No**		NH3486300				**CAS No**		7681-52-9					
Sodium nitrate	1259	Inorg	0	0	Inorg	0	NI	(0)	(0)	(0)	(1)	(1)			SD	1
Sodium nitrate	656		**RTECS No**		WC5600000				**CAS No**		7631-99-4					
Sodium nitrite	340	Inorg	0	0	Inorg	3	0	2	(2)	2	0	1			SD	2
Sodium nitrite solution	658		**RTECS No**		RA1225000				**CAS No**		7632-00-0					
Sodium perborate monohydrate	2284	Inorg	NI	NI	Inorg	3	NI	1	0	(3)	2	3			NI	3
Sodium perborate monohydrate	2948		**RTECS No**						**CAS No**							
Sodium petroleum sulphonate	1860	0	NI	0	(NR)	2	NI	0	(0)	(2)	1	2	S		S	2
Sodium petroleum sulphonate	660		**RTECS No**						**CAS No**							
Sodium polyacrylate solution	1487	0	NI	0	NR	1	0	0	(0)	(1)	1	1			D	1
Sodium poly(4+)acrylate solutions	826		**RTECS No**						**CAS No**							
Sodium silicate (solution)	1262	Inorg	0	0	Inorg	2	NI	1	0	(3)	3	3			D	3
Sodium silicate solution	661		**RTECS No**						**CAS No**		1344-09-8					
Sodium sulphate (solution)	1499	Inorg	0	0	Inorg	0	0	0	(0)	(1)	1	1			SD	1
Sodium sulphate solutions	662		**RTECS No**		WE1650000				**CAS No**		7757-82-6					
Sodium sulphide (solution)	1263	Inorg	0	0	Inorg	3	NI	1	1	(3)	3A	3			D	3
Sodium sulphide solution (15% or less)	663		**RTECS No**		WE1905000				**CAS No**		1313-82-2					
Sodium sulphite (solution)	9	Inorg	0	0	Inorg	2	NI	0	(0)	(1)	0	1			D	1
Sodium sulphite solution (25% or less)	664		**RTECS No**		WE2150000				**CAS No**		7757-83-7					
Sodium tartrate succinate/Sodium tartrate disuccinate mixtures	1771	NI	1	1	NI	1	NI	0	NI	NI	NI	NI			D	NI
Sodium tartrates/Sodium succinates solution	665		**RTECS No**						**CAS No**							
Sodium thiocyanate	1264	Inorg	0	0	Inorg	2	NI	1	(0)	(1)	0	0			D	1

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Sodium thiocyanate solution (56% or less)	667		**RTECS No**		XL2275000				**CAS No**		540-72-7					
Sorbitan monooleate	2215	(5)	NI	(5)	R	3	NI	0	NI	NI	0	0			Fp	2
Sorbitan monooleate	2408		**RTECS No**						**CAS No**							
Sorbitol	1265	0	NI	0	R	0	NI	0	(0)	(0)	(0)	(0)			D	0
Sorbitol solution	668		**RTECS No**		LZ4290000				**CAS No**		50-70-4					
Soyabean oil (containing less than 4% free fatty acids)	2320	0	NI	0	R	0	NI	0	(0)	(1)	(0)	1			Fp	2
Soyabean oil	3050		**RTECS No**						**CAS No**							
Yeast Extract Solution with Propylene Glycol (25% or less)	2396	NI	0	0	R	0	NI	0	0	(1)	0	1			D	1
Stabilized Yeast Extract Solution	3631		**RTECS No**						**CAS No**		8013-01-2					
Styrene (monomer)	1273	3	(2)	3	R	3	NI	1	0	2	2	2	CM		FE	3
Styrene monomer	669		**RTECS No**		WL3675000				**CAS No**		100-42-5					
Sulpho hydrocarbon (C3-C88) (LOA)	1972	4	NI	4	NR	2	NI	0	0	0	0	0			Fp	2
Sulphohydrocarbon (C3-C88)	672		**RTECS No**						**CAS No**							
Sulpholane	1277	0	1	1	NR	2	0	1	0	0	1	2			SD	2
Sulpholane	673		**RTECS No**		XN0700000				**CAS No**		126-33-0					
Sulphonated polyacrylate solution	1760	NI	0	0	NI	0	NI	(0)	(0)	(0)	(0)	(0)			D	0
Sulphonated polyacrylate solution	674		**RTECS No**						**CAS No**							
Sulphur	906	Inorg	0	0	Inorg	0	NI	0	0	(1)	1	1			S	1
Sulphur (molten)	675		**RTECS No**		WS4250000				**CAS No**		7704-34-9					
Sulphuric acid	1280	0	NI	0	Inorg	2	NI	(3)	(3)	4	3C	3	C		D	3
Sulphuric acid	676		**RTECS No**		WS5600000				**CAS No**		7664-93-9					
Sulphuric acid	1280	0	NI	0	Inorg	2	NI	(3)	(3)	4	3C	3	C		D	3
Sulphuric acid, spent	677		**RTECS No**		WS5600000				**CAS No**		7664-93-9					
Sulfurized fat(C14-C20) (LOA)	1853	0	NI	0	NR	1	NI	0	(0)	(1)	0	(1)			FD	1
Sulphurized fat (C14-C20)	2257		**RTECS No**						**CAS No**							
Sulfurized polyolefinamide alkene(C28-C250)amine (LOA)	1855	0	NI	0	NR	0	NI	0	0	(0)	0	0			FD	0
Sulphurized polyolefinamide alkene (C28-C250) amine	2258		**RTECS No**						**CAS No**							
Sunflower oil	1283	0	NI	0	R	0	NI	(0)	(0)	(1)	(0)	(1)			Fp	2
Sunflower seed oil	2782		**RTECS No**						**CAS No**		8001-21-6					
Tall oil, crude and distilled	1285	(4)	NI	(4)	(R)	(2)	NI	0	0	(0)	0	0	S		Fp	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Tall oil (crude and distilled)	678		**RTECS No**						**CAS No**		68187-71-3					
Crude Tall Oil	2357	4	NI	4	R	2	0	0	0	(0)	0	0	S		Fp	2
Tall oil, crude	3118		**RTECS No**						**CAS No**							
Tall oil, distilled	2283	0	NI	0	R	0	NI	0	(0)	(0)	0	(0)			Fp	2
Tall oil, distilled	2890		**RTECS No**						**CAS No**							
Tall oil fatty acid (resin acids less than 2%)	1287	0	0	0	R	0	0	0	0	(1)	1	0			Fp	2
Tall oil fatty acid (resin acids less than 20%)	679		**RTECS No**						**CAS No**		61790-12-3					
Tall oil fatty acid, barium salt	1864	NI	NI	NI	NI	NI	NI	(1)	(0)	(2)	1	2			S	2
Tall oil fatty acid, barium salt	680		**RTECS No**						**CAS No**							
Tall oil pitch	2323	3	NI	3	NR	0	0	0	0	(0)	0	(0)			Fp	2
Tall oil pitch	3051		**RTECS No**						**CAS No**							
Tall oil soap (disproportionated solution)	1286	NI	NI	NI	NI	NI	NI	(1)	(0)	(2)	1	2			D	2
Tall oil soap (disproportionated) solution	681		**RTECS No**						**CAS No**							
Tallow	1288	0	NI	0	R	0	NI	0	0	(0)	(0)	(0)			Fp	2
Tallow	682		**RTECS No**						**CAS No**		61789-21-6					
Tallow fatty acid	1289	0	NI	0	R	0	NI	0	(0)	(0)	(0)	(0)			Fp	2
Tallow fatty acid	684		**RTECS No**						**CAS No**							
1,1,2,2-Tetrachloroethane	53	2	2	2	NR	3	0	2	0	2	2	2			SD	2
Tetrachloroethane	687		**RTECS No**		KI8575000				**CAS No**		79-34-5					
Tetradecanoic acid (Myristic acid)	1298	5	NI	0	R	0	NI	0	(0)	(1)	(1)	(1)			Fp	2
n-Tetradecanoic acid	491		**RTECS No**		QH4375000				**CAS No**		544-63-8					
Tetraethylene glycol	1301	0	NI	0	NR	0	NI	0	0	0	1	1			D	1
Tetraethylene glycol	688		**RTECS No**		XC2100000				**CAS No**		112-60-7					
Tetraethylene pentamine	1302	0	NI	0	NR	3	NI	0	2	(3)	3	3	S		D	3
Tetraethylene pentamine	689		**RTECS No**		KH8585000				**CAS No**		112-57-2					
Alcoholic silicasol	2198	0	0	0	R	0	0	0	0	0	1	2			DE	2
Tetraethyl silicate monomer/oligomer (20% in ethanol)	2475		**RTECS No**						**CAS No**							
Tetrahydrofuran	1304	0	NI	0	R	0	NI	0	(0)	0	1	2			DE	2
Tetrahydrofuran	690		**RTECS No**		LU5950000				**CAS No**		109-99-9					
Tetrahydronaphthalene	1305	3	3	3	NR	3	NI	0	0	(2)	2	0			F	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Tetrahydronaphthalene	691		RTECS No		QK3850000				CAS No		119-64-2					
1,2,3,4-Tetramethylbenzene	1307	4	NI	4	NI	4	NI	0	(0)	(1)	1	(1)			F	1
Tetramethylbenzene (all isomers)	692		RTECS No		DC0465000				CAS No		488-23-3					
Tetrapotassium pyrophosphate	2400	Inorg	0	0	Inorg-R	1	NI	0	NI	NI	NI	NI			D	NI
Tetrapotassium pyrophosphate	3635		RTECS No						CAS No		7320-34-5					
Thixatrol plus	2210	5	NI	5	R	3	NI	0	0	0	1	1			S	1
Thixatrol Plus	2699		RTECS No						CAS No							
Titanium dioxide (64 - 77% solution in water)	2080	Inorg	1	1	Inorg	1	NI	0	0	0	1	1			NI	1
Titanium dioxide slurry	2259		RTECS No						CAS No		13463-67-7					
Toluene	330	2	2	2	R	3	0	0	0	0	2	2	ANR	NT	E	3
Toluene	693		RTECS No		XS5250000				CAS No		108-88-3					
2,4-Tolylenediamine	1317	0	2	2	NR	3	0	2	2	4	1	2	CMS		Fp	3
Toluenediamine	695		RTECS No		XS9625000				CAS No		96-80-7					
Toluene diisocyanate	1315	(3)	1	1	NR	2	NI	0	(0)	4	3	3	SCL		S	3
Toluene diisocyanate	694		RTECS No		CZ6300000				CAS No		584-84-9					
Toluidines	1316	1	1	1	R	4	2	1	0	(2)	2	2	CM		FD	3
o-Toluidine	537		RTECS No						CAS No							
Tolyl triazole	2292	1	NI	1	NR	2	0	1	0	(2)	(1)	2			S	2
Tolyl triazole	696		RTECS No						CAS No							
Tributyl phosphate	1319	4	2	2	R	3	0	1	0	2	2	2	S		F	3
Tributyl phosphate	697		RTECS No		TC7700000				CAS No		126-73-8					
1,2,3-Trichlorobenzene	2191	4	4	4	NR	4	2	1	0	(2)	2	2			S	2
1,2,3-Trichlorobenzene (molten)	2288		RTECS No						CAS No							
1,2,4-Trichlorobenzene	1323	4	5	5	NR	4	1	1	0	(2)	2	2	M		S	3
1,2,4-Trichlorobenzene	7		RTECS No		DC2100000				CAS No		120-82-1					
1,1,1-Trichloroethane	1326	2	NI	2	NR	2	NI	0	0	0	2	2			SD	2
1,1,1-Trichloroethane	1		RTECS No		KJ2975000				CAS No		71-55-6					
1,1,2-Trichloroethane	1327	2	1	1	NR	2	0	1	0	1	2	1			SD	2
1,1,2-Trichloroethane	3		RTECS No		KJ3150000				CAS No		70-00-5					
1,1,2-Trichloro-ethylene	329	2	2	2	NR	3	NI	0	0	0	2	2	MC		SD	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Trichloroethylene	698		**RTECS No**		KX4550000				**CAS No**		79-01-6					
1,2,3-Trichloropropane	1329	2	2	2	NR	2	0	2	2	3	2	2	C		SD	3
1,2,3-Trichloropropane	6		**RTECS No**		TZ9275000				**CAS No**		96-18-4					
1,1,2-Trichloro-1,2,2-trifluoroethane	1330	3	2	2	NR	3	0	0	0	0	1	1			S	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	2		**RTECS No**		KJ4000000				**CAS No**		76-13-1					
Tricresyl phosphate (more than 1% ortho-isomers)	1332	5	3	3	R	4	4	0	1	0	1	1	N		S	2
Tricresyl phosphate (containing 1% or more ortho-isomer)	699		**RTECS No**		TD0175000				**CAS No**		1330-78-5					
Tricresyl phosphate (less than 1% ortho-isomers)	1331	5	(3)	(3)	(R)	(4)	(4)	0	1	0	1	1	N		S	2
Tricresyl phosphate (containing less than 1% ortho-isomer)	700		**RTECS No**		TD0175000				**CAS No**		1330-78-5					
Tridecane	1333	0	NI	0	NI	0	NI	0	0	(1)	1	0			Fp	2
Tridecane	701		**RTECS No**		YD3025000				**CAS No**		629-50-5					
Tridecanoic acid	1334	5	NI	5	(R)	3	NI	(0)	(0)	(1)	(1)	(1)			Fp	2
Tridecanoic acid	702		**RTECS No**		YD3850000				**CAS No**		638-53-9					
Tridecyl acetate	1768	5	NI	5	NI	0	NI	0	(0)	(2)	2	2			F	2
Tridecyl acetate	703		**RTECS No**						**CAS No**		1072-33-9					
Triethanolamine	1338	0	0	0	R	1	NI	0	0	(2)	1	2			D	2
Triethanolamine	704		**RTECS No**		KL9275000				**CAS No**		102-71-6					
Triethylamine	1339	1	0	0	R	3	0	1	2	2	2	3			D	3
Triethylamine	706		**RTECS No**		YE0175000				**CAS No**		121-44-8					
1,3,5-Triethylbenzene	1340	5	NI	5	NI	4	NI	0	(0)	(2)	(2)	(1)			F	2
Triethylbenzene	707		**RTECS No**		DC2490000				**CAS No**		25340-18-5					
Triethylene glycol	1341	0	NI	0	R	0	0	0	0	(1)	1	1			D	1
Triethylene glycol	708		**RTECS No**		YE4550000				**CAS No**		112-27-6					
Triethylenetetramine	1346	0	NI	0	NR	3	NI	0	2	(3)	3	3	S		D	3
Triethylenetetramine	709		**RTECS No**		YE6650000				**CAS No**		112-24-3					
Triethyl phosphate	1348	0	0	0	NR	1	0	1	0	0	(2)	(2)			D	2
Triethyl phosphate	705		**RTECS No**		TC7900000				**CAS No**		78-40-0					
Triethyl phosphite	1349	0	NI	0	R	1	NI	1	0	2	1	2	S		FE	2
Triethyl phosphite	710		**RTECS No**		TH1130000				**CAS No**		122-52-1					
Triisopropanolamine	1370	0	0	0	NR	1	0	1	0	0	(2)	3			FD	3

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Triisopropanolamine	711		**RTECS No**		UB8750000				**CAS No**		122-20-3					
Triisopropylated phenyl phosphates	1375	5	5	5	R	4	NI	0	0	0	0	0			S	0
Triisopropylated phenyl phosphates	712		**RTECS No**						**CAS No**		68937-41-7					
Trimethylacetic acid	1350	1	1	1	R	2	NI	1	1	(2)	2	2			Fp	2
Trimethylacetic acid	714		**RTECS No**		TO7700000				**CAS No**		75-98-9					
Trimethylamine	1353	0	NI	0	R	1	NI	1	0	2	3	3			DE	3
Trimethylamine solution (30% or less)	715		**RTECS No**		PA0350000				**CAS No**		75-50-3					
1,2,3-Trimethyl benzene	1354	3	3	3	NR	4	0	0	0	1	2	1			FE	2
Trimethylbenzene (all isomers)	716		**RTECS No**		DC3300000				**CAS No**		526-73-8					
2,4,4-Trimethyl hexamethylene diamine	1359	1	NI	1	NI	NI	NI	1	0	(3)	2	3	S		D	3
Trimethylhexamethylenediamine (2,2,4- and 2,4,4-isomers)	718		**RTECS No**		MO1451000				**CAS No**		26520-58-0					
Trimethyl hexamethylene diisocyanate	1360	0	NI	0	NI	3	NI	0	NI	NI	NI	NI	S		NI	2
Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4-isomers)	717		**RTECS No**		MO1760000				**CAS No**		28679-16-5					
Trimethylol propane polyethoxylate	1362	NI	NI	NI	NR	1	NI	0	0	NI	NI	NI			NI	NI
Trimethylolpropane polyethoxylate	719		**RTECS No**						**CAS No**							
Trimethylol propane, propoxylated	2274	0	NI	0	(NR)	1	0	0	0	(1)	0	1			SD	1
Trimethylol propane propoxylated	2870		**RTECS No**						**CAS No**							
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	1845	4	NI	4	NR	0	NI	0	0	(1)	1	0			F	1
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	26		**RTECS No**						**CAS No**							
2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	1364	3	NI	3	NI	2	NI	0	0	(1)	1	1			Fp	2
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate	27		**RTECS No**		UF6000000				**CAS No**		25264-77-4					
Trimethyl phosphite	1365	0	NI	0	R	NI	NI	NI	NI	NI	NI	NI			S	NI
Trimethyl phosphite	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		SD	3
1,3,5-Trioxane	10		**RTECS No**		YK0350000				**CAS No**		110-88-3					
Tripropylene glycol	1372	0	0	0	NR	0	NI	0	0	(0)	0	0			D	0
Tripropylene glycol	720		**RTECS No**		YK6825000				**CAS No**		24800-44-0					
Trixylenyl phosphate	1377	5	4	4	NR	4	1	(0)	(1)	(2)	(1)	(1)			S	2
Trixylyl phosphate	721		**RTECS No**		ZE8320000				**CAS No**		25155-23-1					
Tung oil	1378	0	NI	0	R	(2)	NI	(0)	(0)	(1)	(0)	(1)			Fp	2

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Tung oil	2784		**RTECS No**						**CAS No**							
Turpentine (wood)	1379	4	NI	4	NI	4	NI	0	(0)	1	(2)	2	AS	(T)	D	2
Turpentine	722		**RTECS No**		YO8400000				**CAS No**		8006-64-2					
Undecanoic acid	1381	4	NI	4	(R)	3	NI	(0)	(0)	(2)	1	(2)			Fp	2
Undecanoic acid	723		**RTECS No**		YQ2275000				**CAS No**		112-37-8					
1-Undecene	1383	5	NI	5	NR	4	NI	(0)	(0)	(1)	(2)	(1)	A		F	3
1-Undecene	24		**RTECS No**						**CAS No**		821-95-4					
1-Undecanol	1382	4	NI	4	R	4	NI	0	0	(2)	2	(1)			Fp	2
Undecyl alcohol	724		**RTECS No**		YQ3155000				**CAS No**		112-42-5					
Urea	1384	0	0	0	R	1	NI	0	0	(1)	1	(1)			D	1
Urea	2627		**RTECS No**		YR6250000				**CAS No**		57-13-6					
Urea/Ammonium mono and dihydrogen phosphate/ Potassium chloride solution	1386	0	0	0	R	3	2	NI	NI	NI	NI	NI			NI	NI
Urea/Ammonium mono- and di-hydrogen phosphate/Potassium chloride solution	727		**RTECS No**						**CAS No**							
Urea/Ammonium nitrate solution (> 1% aq. ammonia)	2322	0	NI	0	R	3	NI	0	0	(2)	1	2			D	2
Urea/Ammonium nitrate solution	728		**RTECS No**						**CAS No**							
Urea/Ammonium nitrate solution (containing < 1% aq. ammonia)	1387	0	NI	0	R	1	2	0	0	(2)	1	2			D	2
Urea/Ammonium nitrate solution (containing less than 1% free ammonia)	729		**RTECS No**						**CAS No**							
Urea-ammonium phosphate solutions	2179	0	0	0	R	3	2	(0)	(0)	(2)	(2)	(2)			D	2
Urea/Ammonium phosphate solution	730		**RTECS No**						**CAS No**							
Urea-formaldehyde resin solution	1388	NI	NI	NI	NI	1	NI	1	1	NI	NI	NI	S		NI	2
Urea formaldehyde resin solution	725		**RTECS No**						**CAS No**							
Urea	1384	0	0	0	R	1	NI	0	0	(1)	1	(1)			D	1
Urea solution	726		**RTECS No**		YR6250000				**CAS No**		57-13-6					
Isovaleraldehyde	1390	1	NI	1	R	3	NI	0	0	0	2	2			D	2
Valeraldehyde (all isomers)	731		**RTECS No**		ES3450000				**CAS No**		590-86-3					
Vegetable acid oils	2371	0	NI	0	R	0	NI	(0)	(0)	(1)	(1)	(1)			Fp	2
Vegetable acid oils (m)	3138		**RTECS No**						**CAS No**							
Vegetable oils fatty acid distillates	2369	0	NI	0	R	0	NI	(0)	(0)	(0)	(0)	(0)			Fp	2
Vegetable fatty acid distillates (m)	3137		**RTECS No**						**CAS No**							
Vegetable protein solution,hydrolyzed	1398	0	NI	0	R	0	NI	(0)	(0)	(0)	(0)	(0)			D	0

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Vegetable protein solution (hydrolysed)	734		**RTECS No**						**CAS No**							
Vinyl acetate	1400	0	NI	0	R	2	NI	1	0	2	1	1	C		ED	3
Vinyl acetate	735		**RTECS No**		AK0875000				**CAS No**		108-05-4					
Vinyl ethyl ether	1405	1	NI	1	NR	1	NI	0	0	0	1	1			E	2
Vinyl ethyl ether	736		**RTECS No**		KO0710000				**CAS No**		109-92-2					
Vinylidene chloride	1406	2	1	1	NR	2	NI	2	0	(2)	2	2	M		SD	3
Vinylidene chloride	738		**RTECS No**		KV9275000				**CAS No**		75-35-4					
Vinyl neodecanoate	1404	5	NI	5	NR	3	NI	0	0	(3)	3	3			F	3
Vinyl neodecanoate	737		**RTECS No**						**CAS No**		45115-34-2					
Vinyl toluenes	1409	3	3	3	NR	3	NI	0	0	2	2	1	NM	(T)	F	3
Vinyltoluene	739		**RTECS No**		WL5075000				**CAS No**		25013-15-4					
Citric juices	494	0	0	0	Inorg	0	0	0	0	0	0	0			D	0
Water	740		**RTECS No**						**CAS No**							
Petroleum wax	1122	0	NI	0	NR	0	NI	0	0	(0)	0	0			Fp	2
Waxes	741		**RTECS No**		RV0350000				**CAS No**		8002-74-2					
White spirit, low (15-20%)aromatic	1411	(4)	NI	(4)	(R)	3	NI	(0)	(0)	(2)	(1)	(2)	A		F	3
White spirit, low (15-20%) aromatic	742		**RTECS No**						**CAS No**							
Wood lignin with sodium actetate/oxalate	2403	NI	NI	(0)	NR	(0)	NI	0	(0)	(1)	(1)	(1)			D	1
Wood lignin with sodium actetate/oxalate	3638		**RTECS No**						**CAS No**							
Xylene (mixed isomers)	1408	3	NI	3	NR	3	0	0	0	0	2	2		(T)	FE	2
Xylenes	743		**RTECS No**		ZE2275000				**CAS No**		133-20-7					
Xylenes/Ethyl benzene (10% or more) mixture	2269	3	2	2	NR	3	1	(0)	(0)	(2)	(2)	(2)		(T)	FE	2
Xylenes/ethylbenzene (10% or more) mixture	2337		**RTECS No**						**CAS No**							
Xylenols (mixtures)	1422	2	NI	2	R	3	NI	1	2	(3)	3	3		(T)	Fp	3
Xylenol	744		**RTECS No**		ZE5425000				**CAS No**		1300-71-6					
Zinc alkaryl dithiophosphate (C7-C16) (LOA)	1977	0	NI	0	NR	3	NI	0	0	(0)	(0)	(0)			Fp	2
Zinc alkaryl dithiophosphate (C7-C16)	745		**RTECS No**						**CAS No**							
Zinc alkenylcarboxamide (LOA)	2053	NI	0	0	NR	0	NI	0	0	(1)	1	(1)			Fp	2
Zinc alkenyl carboxamide	746		**RTECS No**						**CAS No**							
Zinc alkyl dithiophosphate	1428	5	NI	5	NR	3	NI	0	0	0	2	2			S	2

ANNEX 6 - GESAMP/EHS COMPOSITE LIST
GESAMP Hazard Profiles

EHS Name TRN Name	EHS TRN	A1a	A1b	A1	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
Zinc alkyl dithiophosphate (C3-C14)	747		RTECS No						CAS No							
Zinc bromide solutions	2227	Inorg	4	4	Inorg	3	NI	1	(2)	(3)	3B	3	S		D	3
Zinc bromide solutions	2617		RTECS No						CAS No							
Zinc chloride	1425	Inorg	4	4	Inorg	4	1	(1)	(1)	(3)	(3)	(3)			D	3
Zinc chloride	2869		RTECS No		ZH1400000				CAS No		7646-85-7					

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ANNEX 7

HAZARD PROFILE AMENDMENTS (ref: agenda item 3.5)

Substance	EHS	Change
Acrylonitrile	25	C2 = 3, C3 = 3
1,1,2,2,-Tetrachloroethane	53	D3 = blank, E3 = 2
Methyl salicylate	86	C3 = (2)
Ammonium hydrogen phosphate	98	C3 = (0)
Aluminium chloride (30% or less)/ hydrochloric acid (20% or less) solution	336	C2 = (0)
Butyl butyrate	399	A2 = (R)
Butyl octyl phthalate	410	C2 = (0), D1 = (1), D2 = (1)
Butyl stearate	413	A2 = (R), D1 = 2
Butyric acid	418	C2 = 0
Calcium hydroxide slurry	431	B1 = 2
Calcium hypochlorite solutions (15% or less)	2073	C3 = 2
Calcium hypochlorite solutions (more than 15%)	432	C3 = 2
Carbon disulphide	439	D2 = 3
Chlorobenzene	456	C3 = 2
Chlorosulphonic acid	479	C1 = (2), C2 = (3), C3 = 4, D1 = 3C, D2 = 3, E3 = 3
Crotonaldehyde	528	B1 = 4, D3 = S
Sodium dichromate solution (70% or less)	487	B1 = 4
Coconut oil fatty acid	505	B1 = (3)

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ANNEX 8

LIST OF CHEMICALS REVIEWED FOR THE GESAMP-BWWG

1 Sodium bromate

2 Potassium bromate

3 Bromoform

4 Chloroform

5 Dibromochloromethane

6 Dichlorobromomethane

7 Sodium hypochlorite

8 Sodium thiosulphate

9 Monobromoacetic acid

10 Dibromoacetic acid

11 Tribromoacetic acid

12 Monchloroacetic acid

13 Dichloroacetic acid

14 Trichloroacetic acid

15 Bromochloroacetic acid

16 Monochloroamine

17 Trichloropropane

18 Dibromoacetonitrile

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ANNEX 9

OLEFIN SUBSTANCES AND MIXTURES

Name	A1	A1A	A1B	A2	B1	B2	C1	C2	C3	D1	D2	D3	E1	E2	E3
1-Pentene	2	2	NI	NI	(2)	NI	(0)	(0)	0	(0)	(1)			E	2
2-Pentene	2	2	NI	NI	2	NI	(0)	(0)	(0)	(0)	(1)			E	2
Isopentene	2	2	NI	NI	2	NI	(0)	(0)	(0)	(0)	(1)			E	2
Pentene (all isomers)	2	2	NI	NI	(2)	NI	(0)	(0)	(0)	(0)	(1)			E	2
1-Hexene	3	3	NI	R	3	NI	0	0	0	1	1			E	2
2-Hexene (Mixed isomers)	3	3	NI	R	3	NI	(0)	(0)	(1)	(1)	(1)			E	2
Propylene dimer	3	3	NI	R	3	NI	NI	NI	NI	NI	NI			E	2
Hexene (all isomers)	3	3	NI	R	3	NI	(0)	(0)	(1)	(1)	(1)			E	2
1-Heptene	3	3	NI	NI	2	NI	(0)	(0)	(0)	(2)	(1)			E	2
Heptene (all isomers)	3	3	NI	NI	2	NI	(0)	(0)	(0)	(2)	(1)			E	2
Octene (all isomers)	4	4	NI	R	3	NI	0	0	0	2	1	A		FE	2
1-Nonene	4	4	NI	NI	3	NI	0	0	0	1	1	A		FE	2
Propylene trimer	4	5	4	NR	3	2	(0)	(0)	(1)	(1)	(1)			FE	2
Nonene (all isomers)	4	4	NI	NI	3	NI	0	0	0	1	1	A		FE	2
1-Decene	5	5	NI	R	4	2	0	0	0	2	0	A		F	3
1-Undecene	5	5	NI	NR	4	NI	(0)	(0)	(1)	(2)	(1)	A		F	3
Dodecene (all isomers)	5	5	NI	NR	4	NI	0	0	(2)	2	1	A		F	3
Propylene tetramer	4	NI	4	NR	(4)	NI	(0)	(0)	(1)	(1)	(1)			F	1
1-Hexadecene	0	0	NI	NR	0	NI	0	0	0	0	0		0	Fp	2
MIXTURES															
Olefin mixture (C5-C7)	3	3	NI	R	3	NI	(0)	(0)	(1)	(2)	(1)			E	2
Olefin mixture (C7-C9)	4	5	4	NR	4	NI	(0)	0	0	2	1	A		E	2
Olefin mixture (C5-C15)	(5)	(5)	NI	NR	(4)	NI	(0)	(0)	(2)	(2)	(1)	A		FE	2
Alpha-Olefins (C6-C18), mixture	(5)	(5)	NI	NR	(4)	NI	(0)	(0)	(2)	(2)	(1)	A		FE	2
Olefins C13 and above, all isomers	5	5	NI	NR	0	NI	0	0	(0)	0	0			Fp	2

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ANNEX 10

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

1 Adoption of the agenda

2 Matters arising from IMO and other Organizations relevant to the activities of the Working Group

3 Evaluation of new substances

4 Correspondence with industry

5 Consolidation of data

6 Ballast Water Treatment By-Products

7 Communication and publication

8 Any other business