Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals

23 June 2014

Twenty-seventh session
Geneva, 2 – 4 July 2014
Item 5 (a) of the provisional agenda
Development of a list of chemicals classified in accordance with the GHS

Assessing the potential development of a global list of classified chemicals

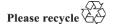
Transmitted by the expert from the United States of America on behalf of the informal correspondence group

Purpose

1. The purpose of this document is to provide an update on the work undertaken by the informal correspondence group assessing the potential development of a global list of classified chemicals, and an agenda for the group's meeting on 4 July 2014.

Background and update

- 2. During the 26th session, the classification list correspondence group agreed to proceed with a pilot classification exercise for a small group of chemicals to be selected by comparison of the TDG and CLP lists prepared by the Secretariat, taking also into account the chemicals nominated by experts. Nominations for chemicals were to be accepted until the end of January 2014, and the chair was to recommend a few chemicals (less than five) from those nominated to be used in the exercise.
- 3. Recognizing the OECD's expertise and experience in classifying chemicals, particularly in its Cooperative Chemicals Assessment Meetings, the Sub-Committee invited the OECD to participate in the pilot exercise.
- 4. In February 2014, the Joint Meeting of the Chemicals Committee and Working Party on Chemicals, Pesticides and Biotechnology of the OECD agreed to collaborate with the GHS Sub-Committee in the pilot exercise.
- 5. After discussions between the global list correspondence group chair and OECD staff about the way to proceed, the correspondence group met by teleconference on 29 April 2014. A report of that teleconference is attached as Annex 1.
- 6. In general, the correspondence group agreed to two approaches for the pilot:
 - (a) First, in the OECD's own pilot classification exercise conducted by the Cooperative Chemicals Assessment Meeting, consensus could not be reached on all endpoints for certain of the chemicals involved. Another attempt to reach consensus for those endpoints on one or more of the chemicals could be made to see what resources it would take to reach agreement.



- (b) Second, classifications of a few more chemicals could be attempted. One or two could be selected for which OECD had performed an assessment. One could be selected for which it had not performed an assessment, to determine the resources needed in doing an assessment "from scratch."
- 7. Under the concept discussed, the GHS Sub-Committee would identify the pilot chemicals, and the OECD would perform a draft classification that it would send back to the GHS Sub-Committee for review. The classification would take two steps: first, agreement would be reached on the relevant data, and second, agreement would be reached on the classification using those data. Some opportunity for stakeholder input would need to be developed.
- 8. OECD staff indicated that it was unlikely that the OECD would be interested in creating the data assessment to be used in the classification exercise, since that takes considerable work. The classification list working group agreed in principle to provide a draft assessment of the data for each nominated chemical. This responsibility would fall to the country or entity that nominated the chemical.
- 9. The working group also considered the draft short list of pilot chemical nominations prepared by the chair. An objection was raised to the inclusion of methanol, one of the chemicals on the list, since the European Union (EU) was currently conducting an assessment of the chemical. Therefore methanol was eliminated from the list. Several chemicals involved in regulatory actions in the United States of America were already omitted for similar reasons.
- 10. Counties or entities that had nominated chemicals on the short list were asked to indicate by the July meeting whether they were willing to prepare a draft data assessment requested by the OECD.
- 11. The current short list of chemicals from which the pilot chemicals are to be selected is attached as Annex 2. Additional nomination forms received from the EU and the United States of America since the December meeting are attached as Annex 3.
- 12. The OECD Task Force on Hazard Assessment discussed the pilot at its meeting on 10 June 2014.
- 13. On another matter, Russian Federation has been leading an initiative in the APEC Chemical Dialogue on classification lists. Several experts have expressed learning more about that initiative and discussing how it might be coordinated with the GHS Sub-Committee work. Elena Zbitneva (Russian Federation) has agreed to make a short presentation at our 4 July meeting on this matter.

Agenda

- 14. Interested persons are invited to attend the meeting of the work group on 4 July 2014 in Room XII during a break in the morning session of the GHS Sub-Committee. The proposed agenda is as follows:
 - (a) Introductions and overview of meeting
 - (b) Presentation by Joop de Knecht (OECD) on the discussion of the pilot project by the OECD Task Force
 - (c) Planning for Sub-Committee's pilot classification exercise:
 - (i) Discussion of the pilot exercise process, including means for stakeholder involvement and identification of the work to be done both by the GHS Sub-Committee and OECD;

- (ii) Selection of chemicals;
- (iii) Timing of exercise
- (d) Presentation by Elena Zbitneva on the classification list initiative by the Russian Federation in the APEC Chemical Dialogue.
- (e) Discussion on how to coordinate GHS Sub-Committee and APEC Chemical Dialogue activities on classification lists.

Annex 1

Report on 29 April 2014 teleconference (GHS classification list correspondence group)

Participants:

Edmund Baird (Chair, (USA)) Joop de Knecht, OECD, and representatives from Norway, Portugal, Finland, CEFIC, Germany, Canada, American Cleaning Institute, United States, American Chemistry Council, ECHA, EC, Australia, New Zealand, WHO, the Netherlands, Russian Federation

The teleconference started at 6:30 am Washington DC time.

1. Planning the pilot project with the OECD

- (a) The pilot project aims to examine the resources needed to produce a harmonized classification list according to the guiding principles, and the OECD has agreed to participate with us. Ed Baird, the Classification List Correspondence Group Chair, has been in discussions with Joop de Knecht, OECD, over the details of the project. As initially conceived by Ed, pilot chemicals would be identified by the Sub-Committee, and the OECD would prepare a classification for the Sub-Committee's review. Classification would have two phases: (1) reaching agreement on the data to be used in the classification (or "data assessment"), and then (2) reaching agreement on the classification. One country would take the lead in preparing draft data assessments and classifications which would be the starting point for discussions of the OECD group. There would also be some opportunity for stakeholder input.
- (b) Joop had two concerns. First, he felt that the OECD likely would not be willing to do a full data assessment, as that involves a significant amount of work. Second, he wanted to ensure that we would be obtaining new information, over and above what had been learned in OECD's own pilot classification effort. The working group discussed these two points.
 - (i) The working group agreed in principle with the OECD's request that the Subcommittee provide a draft assessment of the data for each nominated chemical. This responsibility would fall to the country or entity that nominated the chemical for the pilot exercise. OECD assessments and other information on the eChemPortal will be a helpful starting point for compiling this information. Joop emphasized the importance that sufficient detail be provided in the discussion of studies so that the study's reliability can be assessed. Dan Merkel, also of the OECD, also emphasized the importance of transparency in the assessment, and the reasons for discounting or excluding a study should be documented.
 - (ii) In discussing Joop's second point, the working group agreed that there could be two parts of the classification exercise.
 - First, we noted that in the OECD's pilot exercise, it had not reached
 consensus on some endpoints for some chemicals. It would be useful to
 see what additional effort was necessary to reach consensus those
 endpoint on one or more of the chemicals the OECD studied. The
 Netherlands suggested that the GHS Sub-Committee might do this work,
 but perhaps it also could be pursued by the OECD.

- Second, we thought that it would be useful to do a classification of a few more additional chemicals. Joop indicated that OECD had performed assessments on all but one of the chemicals on the short list drafted by the chair, so in some sense work on these chemicals would not be "from scratch." Perhaps we could a chemical with no OECD assessment, and one or two for which an assessment had been performed. In this way we could examine the effort needed to do a classification from start to finish in accordance with the guiding principles in both situations.
- (iii) There was some discussion of the resources needed to perform a classification. It was suggested that classifications for only a few endpoints be done, but the working group thought it better to do a classification for all endpoints, as this was required by the guiding principles and would give a better understanding of the resources needed (which is one of the objectives of the pilot exercise).

2. Short list of pilot exercise chemicals

We examined the short list of nominated chemicals prepared by the chair. There was some interest expressed in Acrylamide. ECHA had an objection to methanol since there is some EU activity on that chemical and classification is proving controversial. Ed noted that in compiling the short list, several chemicals involved in regulatory actions in the United States of America were omitted for similar reasons. All agreed that before a selection can be made, nominating countries need to indicate whether they are willing to do the classification, and nominating countries would indicate to the chair whether they would be willing to do that before the OECD Task Force's meeting in June.

3. Next steps

- (a) Joop will take the results of this discussion to the OECD Task Force on Hazard Assessment, and report back on its decision at our July meeting. (Though not noted at the teleconference, Joop has subsequently indicated that the Task Force will meet on June 10-11, 2014.)
- (b) We will do additional planning about how the exercise will work at our next meeting. In particular, we will need to discuss how to incorporate stakeholder input into the classification exercise. American Chemistry Council in particular noted the importance of stakeholder involvement, and suggested that providing early opportunities to participate in the process would be best. Joop discussed resources OECD has to incorporate input from a wide group of contributors. Some concern was voiced being sure we have a process that will be able to move forward to make a decision.
- (c) We hope to be able to select additional chemicals for the pilot in July. Perhaps work can begin at the OECD meeting in October.

| Chemical | UN | CAS No. | Nominator | Cla | ssification | CLP Classification | Volume | Other information |
|------------------------|--------------|------------|-----------|-------------------------|-------------|--|---|--|
| | No. | | | TDG | GHS Analog | | consumed worldwide (1000s metric tons) | (U.S. EPA) |
| Acrylamide | 2074 3426 | 79-06-1 | Australia | Class 6.1, PG III | Acute Tox 3 | Acute Tox 3*(ingestion) Acute Tox 4*(skin) Acute Tox 4*(inhalation) Skin Irr 2 Eye Irr 2 Skin Sens 1 Carc 1B Mut 1B Repr 2 STOT RE 1 | 496 (2006) | HPV IRIS assessment TRI data available |
| Methyl methacrylate | 1247 | 80-62-6 | Australia | Class 3 PG II | Flam Liq 2 | Flam Liq 2 Skin Irr 1 Skin Sens 2 STOT SE 3 | 2,739 (2008) | IRIS assessment TRI data available |
| Amines, tallow alkyl | | 61790-33-8 | EC | Class 8 Class 9 | | Acute Tox 4 (oral) Skin Cor 1B STOT RE 2 (gastro intestinal tract, liver, immune system) Asp Tox 1 Aq Acute 1 Aq Chronic 1 | 14.4 (US only) | |
| 2,4,4-trimethylpentene | 2050 | 25167-70-8 | EC | Class 3 PG II | Flam Liq 2 | Flam Liq 2 STOT SE 3 Asp Tox 1 | 45-113 (US only) | |

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Other information

(U.S. EPA)

HPV

HPV

HPV

IRIS

Volume

consumed

worldwide (1000s metric tons)

16.3 (US only)

1,475 (2007)

5,055 (2008)

(all phthalates)

| Legen | d: |
|-------|----|

(DNBP))

Chemical

Tris(nonyl-

phenyl)

phosphite

Ethanolamine

Pthalates (Di-n-

butyl phthalate

UN

No.

2491

3082

HPVIS = High Production Volume Information System – U. S. EPA

CAS No.

26523-78-4

141-43-5

84-74-2

Nominator

EC

USA

USA

IRIS = Integrated Risk Information System – U. S. EPA

TRI = Toxics Release Information – U. S. EPA

TSCA = Toxics Substance Control Act – U. S. EPA

Worldwide Consumption figures from the Chemical Economics Handbook. Where that source had no information, USA consumption figures from US EPA are given.

Classification

GHS Analog

TDG

Class 9

PG III

PG III

Class 9

PG III

Class 8 Corr. 1C

CLP Classification

Skin Sens 1

Aq Acute 1

Aq Chronic 1

Skin Corr 1B

Repr.(Cat 1B)

Acute Tox 4* (highest minimum classification)

Annex 3

Additional nominations

2,4,4-trimethylpentene

| Chemical name | 2,4,4-trimethylpentene |
|---|---|
| Identifier | |
| UN | |
| CAS | 25167-70-8 |
| Impurities | |
| HPV (Y/N) | |
| Pesticide (Y/N) | N |
| Data availability: Data Rich/Data Poor | |
| Is this chemical already on a list (Y/N) | Y |
| List 1 (list name and date of classification) | EU CLP Regulation, Annex VI 5th ATP 3/10/2013 Opinion of Risk Assessment Committee, ECHA: http://echa.europa.eu/documents/10162/52d2a591-4d1c-4ee8-9647-c403dcf812f5 |
| Is the data and rationale for each classification available (Y/N) | Y |
| | List 1 classification(s) |
| List 1 Physical hazards | Flam. Liq. 2 |
| List 1 Health hazards | Asp. Tox. 1 STOT SE 3; H336 |
| List 1 Environ. hazards | |
| Reason for selecting chemical | There is data available (a recent opinion of the Risk Assessment Committee, ECHA) for this non-CMR substance |

A luminium-magnesium-zinc-carbonate-hydroxide

| Chemical name | aluminium-magnesium-zinc-carbonate-hydroxide |
|---|--|
| Identifier | |
| UN | |
| CAS | 169314-88-9 |
| Impurities | |
| HPV (Y/N) | |
| Pesticide (Y/N) | N |
| Data availability: Data Rich/Data Poor | |
| Is this chemical already on a list (Y/N) | Y |
| List 1 (list name and date of classification) | EU CLP Annex VI 5th ATP 3/10/2013 Opinion of Risk Assessment Committee, ECHA: http://echa.europa.eu/documents/10162/2526c971-9491-488f-be7b-68c7ad002c7e |
| Is the data and rationale for each classification available (Y/N) | Y |
| | List 1 classification(s) |
| List 1 Physical hazards | |
| List 1 Health hazards | |
| List 1 Environ. hazards | Aquatic Chronic 4 |
| Reason for selecting chemical | There is data available (a recent opinion of the Risk Assessment Committee, ECHA) for this non-CMR substance. |

Amines, tallow alkyl

| Chemical name | amines, tallow alkyl |
|---|--|
| Identifier | |
| UN | |
| CAS | 61790-33-8 |
| Impurities | |
| HPV (Y/N) | |
| Pesticide (Y/N) | N |
| Data availability: Data Rich/Data Poor | |
| Is this chemical already on a list (Y/N) | Y |
| List 1 (list name and date of classification) | EU CLP Annex VI 5th ATP 3/10/2013 Opinion of Risk Assessment Committee, ECHA: http://echa.europa.eu/documents/10162/0606d258-edc8-41d8-87ae-47fc03815e61 |
| Is the data and rationale for each classification available (Y/N) | Y |
| | List 1 classification(s) |
| List 1 Physical hazards | |
| List 1 Health hazards | Acute Tox. 4 Asp. Tox. 1 STOT RE 2; H373 (gastro-intestinal tract, liver, immune system) Skin Corr. 1B |
| List 1 Environ. hazards | Aquatic Acute 1 Aquatic Chronic 1 M=10 |
| Reason for selecting chemical | |

Amines, coco alkyl

| Chemical name | amines, coco alkyl |
|---|---|
| Identifier | |
| UN | |
| CAS | 61788-46-3 |
| Impurities | |
| HPV (Y/N) | |
| Pesticide (Y/N) | N |
| Data availability: Data Rich/Data Poor | |
| Is this chemical already on a list (Y/N) | Y |
| List 1 (list name and date of classification) | EU CLP Annex VI 5th ATP 3/10/2013 |
| | Opinion of Risk Assessment Committee, ECHA: http://echa.europa.eu/documents/10162/1be59a90-7341-4c4b-9a61-9b379379d781 |
| Is the data and rationale for each classification available (Y/N) | Y |
| | List 1 classification(s) |
| List 1 Physical hazards | |
| List 1 Health hazards | Acute Tox. 4 Asp. Tox. 1 STOT SE 3; H335 STOT RE 2; H373 (gastro-intestinal tract, liver, immune system) Skin Corr. 1B |
| List 1 Environ. hazards | Aquatic Acute 1 Aquatic Chronic 1 M=10 |
| Reason for selecting chemical | There is data available (a recent opinion of the Risk Assessment Committee, ECHA) for this non-CMR substance. |

Amines, hydrogenated tallow alkyl

| Chemical name | amines, hydrogenated tallow alkyl |
|---|---|
| Identifier | |
| UN | |
| CAS | 61788-45-2 |
| Impurities | |
| HPV (Y/N) | |
| Pesticide (Y/N) | N |
| Data availability: Data Rich/Data Poor | |
| Is this chemical already on a list (Y/N) | Y |
| List 1 (list name and date of classification) | EU CLP Annex VI 5th ATP 3/10/2013 |
| | Opinion of Risk Assessment Committee, ECHA: http://echa.europa.eu/documents/10162/1e7eed4f-1662-43c3-b62c-ec60cce7431b |
| Is the data and rationale for each classification available (Y/N) | Y |
| | List 1 classification(s) |
| List 1 Physical hazards | |
| List 1 Health hazards | Asp. Tox. 1 STOT RE 2; H373 (gastro-intestinal tract, liver, immune system) Skin Irrit. 2 Eye Dam. 1 |
| List 1 Environ. hazards | Aquatic Acute 1 Aquatic Chronic 1 M=10 |
| Reason for selecting chemical | There is data available (a recent opinion of the Risk Assessment Committee, ECHA) for this non-CMR substance |

(Z)-octadec-9-enylamine

| Chemical name | (Z)-octadec-9-enylamine |
|---|---|
| Identifier | |
| UN | |
| CAS | 112-90-3 |
| Impurities | |
| HPV (Y/N) | |
| Pesticide (Y/N) | N |
| Data availability: Data Rich/Data Poor | |
| Is this chemical already on a list (Y/N) | Y |
| List 1 (list name and date of classification) | EU CLP Annex VI 5th ATP 3/10/2013 |
| | Opinion of Risk Assessment Committee, ECHA: http://echa.europa.eu/documents/10162/bd40638b-9be4-46a4-a074-cab59a04758e |
| Is the data and rationale for each classification available (Y/N) | Y |
| | List 1 classification(s) |
| List 1 Physical hazards | |
| List 1 Health hazards | Acute Tox. 4 Asp. Tox. 1 STOT SE 3; H335 STOT RE 2; H373 (gastro-intestinal tract, liver, immune system) Skin Corr. 1B |
| List 1 Environ. hazards | Aquatic acute 1 Aquatic Chronic 1 M=10 |
| Reason for selecting chemical | There is data available (a recent opinion of the Risk Assessment Committee, ECHA) for this non-CMR substance. |

Octadecylamine

| Chemical name | Octadecylamine |
|---|---|
| Identifier | |
| UN | |
| CAS | 124-30-1 |
| Impurities | |
| HPV (Y/N) | |
| Pesticide (Y/N) | N |
| Data availability: Data Rich/Data Poor | |
| Is this chemical already on a list (Y/N) | Y |
| List 1 (list name and date of classification) | EU CLP Annex VI 5th ATP 3/10/2013 |
| | Opinion of Risk Assessment Committee, ECHA: http://echa.europa.eu/documents/10162/e7e2c472-0902-4ee2-a7a2-f2803204cab7 |
| Is the data and rationale for each classification available (Y/N) | |
| | List 1 classification(s) |
| List 1 Physical hazards | |
| List 1 Health hazards | Asp. Tox.1 STOT RE 2; H373 (gastro-intestinal tract, liver, immune system) Skin Irrit. 2 Eye Dam. 1 |
| List 1 Environ. hazards | Aquatic Acute 1 Aquatic Chronic 1 |
| | M=10 |
| Reason for selecting chemical | There is data available (a recent opinion of the Risk Assessment Committee, ECHA) for this non-CMR substance. |

Tris(nonylphenyl) phosphite

| Chemical name | tris(nonylphenyl) phosphite |
|---|---|
| Identifier | |
| UN | |
| CAS | 26523-78-4 |
| Impurities | |
| HPV (Y/N) | |
| Pesticide (Y/N) | N |
| Data availability: Data Rich/Data Poor | |
| Is this chemical already on a list (Y/N) | Y |
| List 1 (list name and date of classification) | EU CLP Annex VI 3rd ATP 11/07/2012 Opinion of Risk Assessment Committee, ECHA: |
| | http://echa.europa.eu/documents/10162/73eb5208-662c-48d0-b878-62ee714d1dc0 |
| Is the data and rationale for each classification available (Y/N) | Y |
| | List 1 classification(s) |
| List 1 Physical hazards | |
| List 1 Health hazards | Skin Sens. 1 |
| List 1 Environ. hazards | Aquatic Acute 1 Aquatic Chronic 1 |
| Reason for selecting chemical | There is data available (a recent opinion of the Risk Assessment Committee, ECHA) for this non-CMR substance. |

Ethanolamine

| Chemical name | Ethanolamine |
|---|--|
| Identifier | 5KV86114PT (this is the unique ingredient identifier) |
| UN | 2491 |
| CAS | 141-43-5 |
| Impurities | |
| HPV (Y/N) | Yes |
| Pesticide (Y/N) | Contained in pesticide products |
| Data availability: Data Rich/Data Poor | Animal and physical data readily available, limited epidemiological data, Human ADME information available |
| Is this chemical already on a list (Y/N) | Yes |
| List 1 (list name and date of classification) | OSHA Air Contaminants List (1989) EPA – FIFRA, TSCA California Occupational Safety and Health Administration – Air Contaminants List FDA – restricted use and concentrations for personal care uses (limited to rinse off applications and formulations (no stay on application)) FDA – GRAS as food additive (2008) |
| Is the data and rationale for each classification available (Y/N) | Yes |
| | List 1 classification(s) |
| List 1 Physical hazards | Decomp to CO, oxidizing agent, corrosive |
| List 1 Health hazards | Suspected Respiratory Toxicant, Neurotoxicant, Sensory Irritant |
| List 1 Environ. hazards | Not available |
| List 2 (list name and date of classification) | Canada - Ingredient Disclosure List Canada – Domestic Ingredients List |
| Is the data and rationale for each classification available (Y/N) | Not found |
| | List 2 classification(s) |
| List 2 Physical hazards | |
| List 2 Health hazards | |
| List 2 Environ. hazards | |

Ethanolamine

| List 3 (list name and date of classification) | EC – European Chemicals Agency IUCLID Dataset (2000), ECHA (2011) |
|---|---|
| Is the data and rationale for each classification available (Y/N) | Yes |
| | List 3 classification(s) |
| List 3 Physical hazards | Corrosive, oxidizing agent, combustible |
| List 3 Health hazards | Hazard to workers via inhalation and dermal Hazard to general population via inhalation, dermal, and oral route |
| List 3 Environ. Hazards | Hazard to aquatic organisms, hazard to terrestrial organisms |
| Reason for selecting chemical | This chemical is used in a wide variety of commercial applications from pharmaceuticals to personal care and household products. It is used as feedstock in the production of detergents, emulsifiers, polishes, pharmaceuticals, corrosion inhibitors, chemical intermediatesInformation on chemical properties, as well as health and safety data is readily available in public databases. |

Formamide

| Chemical name | Formamide |
|---|--|
| Identifier | |
| UN | 8027 |
| CAS | 75-12-7 |
| Impurities | |
| HPV (Y/N) | Yes |
| Pesticide (Y/N) | No |
| Data availability: Data Rich/Data Poor | Animal and physical data available; limited human data; limited environmental data |
| Is this chemical already on a list (Y/N) | Yes |
| List 1 (list name and date of classification) | EPA Priority Testing List (1984); TSCA Inventory (1983) |
| Is the data and rationale for each classification available (Y/N) | Yes |
| | List 1 classification(s) |
| List 1 Physical hazards | Class III combustible liquid |
| List 1 Health hazards | Irritating to skin, eyes, mucous membranes, respiratory tract Teratogenic in animal studies; carcinogenic in mice studies (not rats) Central nervous system effects (drowsiness and lassitude) |
| List 1 Environ. hazards | |
| List 2 (list name and date of classification) | ЕСНА |
| Is the data and rationale for each classification available (Y/N) | Yes |
| | List 2 classification(s) |
| List 2 Physical hazards | None noted |
| List 2 Health hazards | Suspected Carcinogen (most sensitive endpoint) – workers May damage fertility or the unborn child |
| List 2 Environ. hazards | None noted |
| Reason for selecting chemical | |

n-hexane

| Chemical name | n-hexane |
|---|---|
| Identifier | RTECS No. MN9275000, EC #: 203-777-6 ECHA Index #: 601-037-00-0 |
| UN | 1208 |
| CAS | 110-54-3 |
| Impurities | |
| HPV (Y/N) | Yes |
| Pesticide (Y/N) | No |
| Data availability: Data Rich/Data Poor | OSHA 500mg/m3(final) 50 mg/m3 (vacated) NIOSH 50 mg/m3 ACGIH 50 mg/m3 EPA Superfund EPA TSCA California Prop 65 |
| Is this chemical already on a list (Y/N) | Yes |
| List 1 (list name and date of classification) | US. EPA - Superfund Sara Title 3: Section 313 |
| Is the data and rationale for each classification available (Y/N) | Yes |
| | List 1 classification(s) |
| List 1 Physical hazards | Flammable with explosive vapors in pure form Class 1B Flammable |
| List 1 Health hazards | CNS Damage Eye Irritant Skin Irritant |
| List 1 Environ. hazards | Danger to Environment Prevent from entering waterway and sewers. |
| List 2 (list name and date of classification) | EC |
| Is the data and rationale for each classification available (Y/N) | Yes |

n-hexane

| | List 2 classification(s) |
|---|---|
| List 2 Physical hazards | Flam Liquid 2 |
| List 2 Health hazards | Asp Tox 1 Skin Irrit 2 STOT SE 3 Repr. 2 |
| List 2 Environ. hazards | Aquatic Chronic 2 |
| List 3 (list name and date of classification) | WHMIS - Canada |
| Is the data and rationale for each classification available (Y/N) | Yes |
| | List 3 classification(s) |
| List 3 Physical hazards | Very Flammable |
| List 3 Health hazards | Skin and Eye Irrit |
| List 3 Environ. Hazards | Aquatic Tox. |
| Reason for selecting chemical | High volume chemical in the US |

$Phthalates\ (Di-n-butyl\ phthalate\ (DBP))$

| Chemical name | Phthalates (Di-n-butyl phthalate (DBP)) |
|---|---|
| Identifier | RTECS Number - TI0875000 EC Number - 201-557-4 EC #: 607-318-00-4 EINECS #: 201-577-4 |
| UN | 3082 |
| CAS | 84-74-2 |
| Impurities | |
| HPV (Y/N) | Yes |
| Pesticide (Y/N) | Yes, Agricultural Chemical and Pesticide; |
| Data availability: Data Rich/Data Poor | Data rich |
| Is this chemical already on a list (Y/N) | Y |
| List 1 (list name and date of classification) | OSHA ACGIH 1992 NIOSH EPA TSCA EPA Sara 311/312/313 |
| Is the data and rationale for each classification available (Y/N) | Y |
| | List 1 classification(s) |
| List 1 Physical hazards | Combustible Avoid exposure – obtain special instructions before use. Decomposes to - May also produce 1-butene, butanol and phthalic anhydride. Carbon monoxide, carbon dioxide, acrid smoke and fumes. |
| List 1 Health hazards | Reproductive Toxicity: Women working where phthalates are used had higher incidence of miscarriages, menstrual disorders, and reduced gestation periods. WARNING! HARMFUL IF SWALLOWED. CAUSES SEVERE EYE IRRITATION. CAUSES SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE RESPIRATORY TRACT IRRITATION. MAY BE HARMFUL IF INHALED. Tumorigen; Mutagen; Reproductive Effector; Human Data EPA: Human health assessment information on a chemical substance is included in the IRIS database only after a comprehensive review of toxicity data, as outlined in the IRIS assessment development process. Sections I (Health Hazard Assessments for Noncarcinogenic Effects) and II (Carcinogenicity Assessment for Lifetime Exposure) present the conclusions that were reached during the assessment development |

Phthalates (Di-n-butyl phthalate (DBP))

| | process. Supporting information and explanations of the methods used to derive the values given in IRIS are provided in the guidance documents located on the IRIS website. STATUS OF DATA FOR Dibutyl phthalate File First On-Line 01/31/1987 OSHA: TLV (as TWA): ppm; 5 mg/m3 (ACGIH 1992-1993) OSHA PEL: TWA 5 mg/m3 NIOSH REL: TWA 5 mg/m3 NIOSH IDLH: 4000 mg/m3 THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. |
|---|---|
| List 1 Environ. hazards | Dangerous to the environment. Very toxic to aquatic organisms. |
| List 2 (list name and date of classification) | ECHA Netherlands through ECHA Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation) |
| Is the data and rationale for each classification available (Y/N) | Y |
| | List 2 classification(s) |
| List 2 Physical hazards | Explosives conclusive but not sufficient for classification Flammable gases conclusive but not sufficient for classification Oxidizing gases conclusive but not sufficient for classification Oxidizing gases conclusive but not sufficient for classification Gases under pressure conclusive but not sufficient for classification Flammable liquids conclusive but not sufficient for classification Flammable solids conclusive but not sufficient for classification Self-reactive substances and mixtures conclusive but not sufficient for classification Pyrophoric liquids conclusive but not sufficient for classification Pyrophoric solids conclusive but not sufficient for classification Self-heating substances and mixtures conclusive but not sufficient for classification Substances and mixtures which in contact with water emits flammable gases conclusive but not sufficient for classification Oxidising liquids conclusive but not sufficient for classification Oxidising solids conclusive but not sufficient for classification Organic peroxides conclusive but not sufficient for classification Corrosive to metals conclusive but not sufficient for classification |
| List 2 Health hazards | Repro 1B Reproductive toxicity Repr. 1B H360: May damage fertility or the unborn child <state effect="" if="" known="" specific=""> <state cause="" conclusively="" exposure="" hazard="" if="" is="" it="" no="" of="" other="" proven="" route="" routes="" that="" the="">. Effects via lactation conclusive but not sufficient for classification</state></state> |

$Phthalates\ (Di-n-butyl\ phthalate\ (DBP))$

| List 2 Environ. hazards | Aquatic Acute 1 Hazardous to the aquatic environment (acute/short-term) Aquatic Acute 1 H400: Very toxic to aquatic life. |
|-------------------------------|---|
| | Hazardous to the aquatic environment (long-term) data lacking hazardous to the ozone layer data lacking Acutely toxic to aquatic organisms, |
| | Labelling Signal word Danger |
| Reason for selecting chemical | |

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