Material Health Statement® V3.0

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Content

1 INTRODUCTION

The MHS® is a voluntary statement serving the need of customers purchasing and using a product or intending to do so to be informed on its chemical safety.

Being made publicly available or merely accessible in a defined area of communication at the convenience of the producer, the MHS® informs interested customers about the expected health properties of a product or a range of similar products during their intended use phase, in a defined target scenario for productive after-use management, but also while handling production inputs in the last manufacturing step.

The reporting format "MHS®" is a trademark of the EPEA GmbH – Part of Drees & Sommer, which performs the assessments.

The generation of a MHS® is a service of the independent third party EPEA to producing companies at all levels of supply chains.

The MHS® does not address physical risks like e.g. ingestion of small products or parts thereof by children. It is restricted to risks associated with chemicals that they contain, especially those that could emanate from the product during its use and its management after-use as well as from the handling of production inputs that convey them to the product, and could be taken up by biological systems, including the users of the product, workers involved in industrial transformations before and after use as well as the open environment.

Through regular updates, the MHS® offers the possibility to measure progress resulting from the evolution of recipes during its validity period.

This document sums up the applied rules and resources used for the generation of a MHS®:

- Frame conditions for the development of a MHS®
- MHS® structure and document tracking
- Product Inventory: Information origin and quality
- Assessment and ratings
- How confidentiality specifications are dealt with
- MHS® update frequency

The product MHS® is offered in two possible forms:

1) As a standalone document.
2) As an element of EPEA's Circularity Passport – Product® (CPP®) [1]

[1] The MHS® is to be understood in the more global perspective of the development of holistic product quality including positively defined environmental quality which is itself object of communication of achievements at a point in time with the Circularity Passport – Product®.

2 FRAME CONDITIONS FOR THE DEVELOPMENT OF A MHS®

A product MHS® is developed together with producing companies, i.e. entities that are legally responsible for the quality of their products. The MHS® supports communication on products of pioneering companies who apply or explore the application of Cradle to Cradle Design principles in their strategy for transformation to an environmentally beneficial industrial actor.

A company is seen environmentally beneficial when it is using its influence in the business environment to invite and support suppliers to adopt these principles and when it invites customers to support investment for further progress by purchasing the product.

3 MHS® GENERATION PROCESS

The product MHS® describes the level reached at a point in time on the way to positive material definition of the product. The positive material definition process encompasses:

- **Inventory**: Knowledge of the qualitative and quantitative composition of the product and of supplier products involved in its production.
- **Impact assessment**
  - Evaluation of the product composition regarding its safety for users and in defined scenarios for productive after-use management.
  - Tracing back to production inputs responsible for problematic chemical components
- **Declaration**.

With positive material definition as the goal of product optimization, the MHS® reflects work in progress along two lines of development:

- Optimization of the material definition may require intensified relationships with suppliers, who may have to overcome fears concerning unfair treatment of their know-how. Solutions being able to be offered in a positively defined way may require time.
- (Eco)toxicology is still a young scientific discipline and knowledge on chemicals is also subject to progress with time.

4 MHS® STRUCTURE

The MHS® is an EPEA document on a producer's product or product group. It contains the following design elements:

- The product identification and its manufacturer
- Date of issue and validity period
- Inventory, assessment and declaration threshold (100 ppm = 0,01% in the product)
- After-use scenario(s) that the producer foresees
- EPEA document registration number

- A table with the following elements
  - List of chemicals identified in the product, or a placeholder mentioning whether they are undefined or defined but kept confidential. Chemicals may be grouped according to their function in the product
  - Grouping of chemicals from a functional point of view [1]
  - Relative amount in the product per functional group [1,2]
  - EPEA's rating with a comment addressing critical issues
  - A statement on the pure substance with relevance for American (GreenScreen rating) and European markets (Compliance with the European chemical policy).
- A graphical assessment summary that renders a mass weighted distribution of ratings.
- The product MHS® contains a reference to the present document on the applicable assessment methodology. It may also contain a reference to external documents of the producer dealing with their concept for the use and after-use management underlying the assessment process at EPEA.
- The MHS® exists in 2 forms that differ by having or not a confidential technical annex. The confidential annex contains:
  - a recapitulation of the production recipe information:
  - a commented rating of production inputs including a recommendation for production inputs to be addressed for optimization
    - when problematic chemical components of the product are traced back to them.
    - when they contribute to problematic production by-products that do not enter the product's composition and are therefore not listed as such in the product's chemical composition declaration in the MHS®.
    - by substitution with production inputs produced by suppliers supporting the transparency initiative with the MHS®.

The assessment underlying the MHS® is thus based on a mandatory nested content inventory [3].

The variant with the confidential annex exists only in 2 exemplars, one for the records of the producer and one for the records of EPEA. The variant without the confidential technical annex is for release at the producer's convenience.

[1] Please note that grouping of chemicals reflecting the physical product construction and mention of the content of each chemical in the product are not intended for protecting the customer from potential reverse engineering by competitors. In case that the assessment needs to rely on quantities for justifying the rating, this occurs specifically in the comment.

[2] Quantitative composition information is given as exact value (product) or as range (Product range) depending on the object of the reporting in the MHS.

[3] Please refer to the definition of terms of HPD Collaborative: https://hpdc.freshdesk.com/support/solutions/articles/8000053039-basic-vs-nested-content-inventory-what-s-the-difference-

5 PRODUCT INVENTORY: INFORMATION ORIGIN AND QUALITY

The starting point for the generation of a MHS® is the production recipe of the producer. It includes the bill of involved commercial production inputs (BOM) and standard technical documentation attached to each involved supplier product (TDS), as well as product safety information the producer has a legal right to access (safety datasheets - SDS).

This information is complemented with information on the chemical composition and/or the production process that is voluntarily provided by supportive suppliers to fill inventory gaps. It may be delivered by the supplier to his customer and to EPEA, or only to EPEA. In the second case, EPEA acts as a trustee who is not in the position to declare the chemical explicitly but to assess it, to rate it and to declare it with a "Proprietary" placeholder.

The chemical composition of a product is qualitatively and quantitatively derived from the composition of precursor products by taking into account chemical transformations happening during the production process. The contribution of precursor products to by-products (not entering the product composition) is taken into account during the assessment and rating of production inputs backed-up in the confidential technical annex.

A product MHS® development process strives for an understanding of the chemical composition that is as exact as possible. Striving for exactness is however modulated by striving also for relevance and plausibility of sufficiency (e.g. the exact chemical composition of a native wood raw material may be in most application cases irrelevant to address).

Full material definition is however not a prerequisite for developing a first product MHS®. The MHS® describes a product as it is at a point in time and makes the level of residual intransparency of the product's composition transparent.

The composition of the product declared in the MHS® is the composition up to the so-called "Declaration limit". Chemicals reach the declaration limit are declared and assessed when they contribute for at least 100 ppm to the overall product make-up or a lower level that is specified as subject to review in the latest version of the Cradle to Cradle certification standard [1]. In case of a product group MHS®, chemicals are declared and evaluated when they exceed the declaration limit in at least one product of the group.

The chemical composition of a product is rendered as a list of chemicals identified by their name, their CAS number.

The inventory quality control is based on verification of the conservation of mass after transformation of precursor products (before the process) to products and byproduct (after the process) and can also rely on laboratory analyses to verifiy the match between reality and expectations.

The inventory is done as exactly as possible as it is the basis for the subsequent assessment of the product's health and environmental safety properties during use and after-use operations.

[1] Resources - Cradle to Cradle Products Innovation Institute (c2ccertified.org): https://c2ccertified.org/resources

The inventory process balances between exactness and sufficiency of inventory. The inventory may be stopped when:

- sufficient information is already available for optimization, e.g. in case of availability of environmentally better performing alternatives as low hanging fruits for optimization.
- suppliers decline to deliver information going beyond SDS and TDS.
- the necessary resources would be disproportionate to the expected result.
- Educated guesses of experienced assessors can apply.

If recycled content is involved, it's chemical make-up is approached with information on its origin and with laboratory analyses. If a chemical is originating from many sources, contributions are summed-up in one figure per chemical, irrespective of whether the production inputs are of recycled or of virgin origin.

The global contribution of the recycled content to the chemical make-up of the product is highlighted in the MHS® table of standalone MHS. In case of integration of the MHS in the Circularity Passport – Product, the resource origin of production inputs is dealt with in the "Circular sourcing" section.

6 ASSESSMENT AND RATINGS

The assessment underlying the MHS relies on the Cradle to Cradle assessment Methodology by default [1]. It can however diverge with specific and publicly available EPEA policies. In these cases, this is highlighted in the MHS® by refering to the specific policy. The *Charter for a Responsible Use of PVC and Chlorine Management* is a specific policy applying to PVC products [2].

The MHS® goes beyond safety datasheets specified by law in which the specifications for composition declaration are limited to intrinsically dangerous substances with a content exceeding high thresholds (depending on properties defined for example in Art. 31 of the European Regulation 1907/2006 [3]).

Chemicals involved in the product inventory receive 2 ratings:

- Rating relating to the safety of the chemical during the phase of use of the product
- Rating encompassing:
  - the estimated safety of the chemical in the after-use management scenario intended to apply after the latency of the use phase.
  - the conditions of handling of the purchased production inputs at the last step of the product's manufacturing. The possible manifold origin of one and the same chemical component in the product is taken into account by considering the most problematic production input conditions in the last manufacturing step [4].

[1] Resources - Cradle to Cradle Products Innovation Institute (c2ccertified.org): https://c2ccertified.org/resources

[2] Charter for a Responsible Use of PVC and Chlorine Management

[3] Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18. December 2006.

[4] The chemical production and handling conditions at the levels of the supplier's production is not taken into account for MHS® V3.0 for reasons of generalized non-attainability of such information at the time of releasing MHS® V3.0. It is intended to be included in the scope of the assessment in the further evolution of the MHS®.

6.1 HAZARD RATING

The addressed chemical hazard/safety properties and applied classification rules are described in the guidance on material health assessment in the latest Cradle to Cradle certification standard Version[1].

Sources used to profile chemicals for their hazard/safety properties are listed in the annex to this document.

The Cradle to Cradle methodology for assessment of chemicals does not foresee aggregation of individual intrinsic hazard/safety properties in one single statement.

The following statement formats applying to the pure substance are mentioned explicitly in the MHS:

- The GreenScreen classification[1]
- The occurrence in the latest European listing of substances in Annex XIV and XVII of the REACH regulation 1907/2006 and in the list of Substances of Very High Concern that are candidates for inclusion Annex XIV (SVHC list)[2,3,4].

They are for information of the reader and may not reflect the conclusions of EPEA on hazards associated with the pure chemical.

6.2 BENEFIT/RISK RATING

The product inventory and chemical hazard information on chemicals are combined for benefit/risk assessment and rating. The result of the risk assessment is a “Concern” statement on the chemical in the context of the product’s production, use and after-use management. The assessment results are presented as follows:

: Beneficial / Not detrimental, no concern

: Moderate concern (Hazard identified but no risk)

: Concern due to risk of exposure of workers, users or environmental systems

: Unknown risk of exposure of workers, users or environmental systems

[1] https://toxnot.com/

[2] List of substances included in Annex XIV of REACH ("Authorization List"). https://echa.europa.eu/en/addressing-chemicals-of-concern/authorisation/recommendation-for-inclusion-in-the-authorisation-list/authorisation-list

[3] Substances restricted (Annex XVII of REACH). https://echa.europa.eu/en/addressing-chemicals-of-concern/authorisation/recommendation-for-inclusion-in-the-authorisation-list/authorisation-list

4 Candidate List of substances of very high concern for Authorization. https://echa.europa.eu/en/candidate-list-table

The chemical risk assessment depends on the possibility and intensity of exposure to hazardous chemicals emanating from the product (emission) and being taken up by biological systems, including humans during use and environmental systems after use (immission).

The risk assessment includes:

- Evaluation of qualitative exposure routes of biological systems to chemical components of products:
  - oral, dermal and inhalative exposure during use by humans
  - aquatic and terrestrial environmental routes for short and long distance exposure during and after use
- Estimation of quantitative exposure resulting from:
  - product emanations as volatile emissions or as eluates.
  - chemical dissociation and anticipated transformations of the product by disintegration, dilution or thermal treatments during and after use.
- Intrinsic exposure enhancement properties of chemicals including:
  - low vapour pressure and boiling point for volatility
  - high bioconcentration and bioaccumulation potentials resulting from their lipophilicity
  - persistence (resistance to chemical and biological degradation) in the environmental compartments that may be reached in the course of use and after-use management
- Consideration of scientifically Derived No-Effect-Levels (DNEL) and levels of beneficial exposure

A comment addresses reasons for a substance to be classified in the product context with:

- high concern
- moderate or no concern when the pure substance is classified with borderline or high toxicity

A precautionary approach is applied by labeling for “moderate concern” when the “absence of concern” is difficult to justify clearly.

7 HOW CONFIDENTIALITY SPECIFICATIONS ARE DEALT WITH

Confidentiality specifications of the product’s producer or the declaration behaviour of suppliers lead to following situations:

	Knowledge of the chemical component			
Actors	**Only supplier** (or supply chain)	**Only EPEA and supplier** (or supply chain)	**All** (Supplier, Producer and EPEA)	
Declaration on MHS	Proprietary	Proprietary	Proprietary	CAS and name
Possible ratings	■	■, ■, ■, or ■	■, ■, ■, or ■	■, ■, ■, or ■

8 MHS® UPDATES

The MHS® development process is also a process for identification of opportunities:

- for optimization of the factual knowledge on the chemical make-up of a product to understand its health performance
- to increase the health performance of the product by evolution of recipes towards safer ones.

MHS® documents have a validity period of 2 years. The juxtaposition of a MHS® update with the former version allows progress measurement along these two lines of health performance development

Rating				
Possible reasons	See benefit /risk rating legend			Either not identified, or unclassifiable risk
Optimization strategy	No justification	Take the opportunity	Look actively for the opportunity	
Optimization paths	No justification	Either production input substitution, or production input optimization		Production input substitution

9 RESOURCES USED AT EPEA

The following list of information sources is not exhaustive.

1. U.S. EPA Aggregated Computational Toxicology Resource. https://actor.epa.gov/actor/home.xhtml
2. AOEC – Asthmagens of Association of Occupational and Environmental Clinics (AOEC) – Exposure Code List. http://www.aoec.org/tools.htm
3. ATSDR - Agency for Toxic Substances and Disease Registry - Toxicological Profile Information. http://www.atsdr.cdc.gov/substances/indexAZ.asp
4. Kayser, D.; Schlede, E. 2001. Chemikalien und Kontaktallergie: Eine bewertende Zusammenstellung. Edited by: Bundesinstitut für gesundheitlichen Verbraucherschutz und Veterinärmedizin (BGVV). Verlag: Urban & Vogel Medien und Medizin Verlag. Munich. http://www.dimdi.de/static/de/index.html
5. European Chemicals Agency. Biocidal active substances. https://echa.europa.eu/information-on-chemicals/biocidal-active-substances
6. “Neurotoxicology and Behavior” chapter, William K. Boyes, Ph.D., et al.(eds.), in Patty’s Industrial Hygiene and Toxicology, 2001 by John Wiley & Sons, Inc. Published Online: April 16, 2001.
7. Cradle to Cradle Certification version 3. http://c2ccertified.org/product_certification/c2ccertified_product_standard
8. California Department of Pesticide Regulation. Environmental Fate Reviews. http://www.cdpr.ca.gov/docs/emon/pubs/envfate.htm
9. Shepard, T. H. 2001. Catalog of Teratogenic Agents. 10th Edition. Baltimore: The Johns Hopkins University Press.
10. Information on Biodegradation and Bioconcentration of the Existing Chemical Substances in the Chemical Risk information platform (CHRIP). http://www.safe.nite.go.jp/english/db.html
11. Cosmetic Ingredient Review. http://www.cir-safety.org/ingredients
12. Community Rolling Action Plan (CoRAP. http://echa.europa.eu/information-on-chemicals/evaluation/community-rolling-action-plan/corap-table
13. Cosmetics info - DB sponsored by the Personal Care Products Council; Info about the safety, testing, and regulation of cosmetics and personal care products and their ingredients. http://www.cosmeticsinfo.org/
14. Gold, L.S.; Zeiger, E. 2007. Handbook of Carcinogenic potency and genotoxicity databases. Boca Raton: CRC Press. http://toxnet.nlm.nih.gov/cpdb/cpdb.html
15. OEHHA - Californian Office of Environmental Health Assessment: Air Toxicology and Epidemiology. Chronic respiratory exposure limits. http://oehha.ca.gov/air/allrels.html
16. Gefahrstoffliste - Gefahrstoffe am Arbeitsplatz (IFA Report 1/2012). http://www.dguv.de/ifa/gefahrstoffliste/index.jsp
17. Detergents Ingredients Database - Version 2014.1. Edited by: European Commission Environment. http://ec.europa.eu/environment/ecolabel/documents/did_list/didlist_part_a_en.pdf
18. DIMDI. Deutsches Institut für Medizinische Dokumentation und Information. http://www.dimdi.de/
19. EC – CEPA Toxic Substances (Schedule 1) of Canadian Environmental Protection Act, 1999 (CEPA 1999): CEPA Toxic. http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=0DA2924D-1&wsdoc=4ABEFFC8-5BEC-B57A-F4BF-11069545E434
20. EC – CEPA DSL of Canadian Categorization Decisions for Substances on the Domestic Substance List (DSL).. http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=5F213FA8-1&wsdoc=D031CB30-B31B-D54C-0E46-37E32D526A1F
21. Commission Regulation (EC) No 2032/2003 (4 November 2003). http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003R2032:20070104:EN:PDF
22. European Chemicals Agency; C&L Inventory Database (Notifications). http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
23. European Chemicals Agency. Information on Chemicals, including relevant documentation for REACH. http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances

24. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/200. Edited by: Official Journal of the European Union. https://echa.europa.eu/regulations/clp/legislation/?panel=legaltextlegaltext
25. European Chemicals Agency: List of registered substances. https://echa.europa.eu/de/information-on-chemicals/registered-substances
26. European Chemicals Agency. Candidate List of Substances of Very High Concern for Authorisation. (SVHC). http://echa.europa.eu/candidate-list-table
27. ECOTOX Release 4.0. http://cfpub.epa.gov/ecotox/quick_query.htm
28. Don Ding, Lei Xu, Hong Fang, Huixiao Hong, Roger Perkins, Steve Harris, Edward D Bearden, Leming Shi, and Weida Tong; The EDKB: an established knowledge base for endocrine disrupting chemicals; BMC Bioinformatics. 2010; 11(Suppl 6): S5. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3026379/
29. Environmental Fate Data Base (EFDB). http://www.srcinc.com/what-we-do/environmental/scientific-databases.html
30. Website of the European Food Safety Authority. http://www.efsa.europa.eu/
31. Anonymous. 2003. List of Endocrine Disrupting Pollutants. Www.oustolenfuture.org. http://www.ourstolenfuture.org/Basics/chemlist.htm
32. EPI Suite™-Estimation Program Interface. https://www.epa.gov/tsca-screening-tools/epi-suitetm-estimation-program-interface
33. Aresini, G.; Karcher, W.; Roi, R.; Sevilla Marcos, J.M. 1995. The ecotoxicity of chemicals: Directory on aquatic toxicity. / The European Community (Hrsg.). Band 1. and 2. Brussels.
34. European Chemicals Agency. Autorisation list (Annex XIV to REACH 1907/2006). https://echa.europa.eu/en/addressing-chemicals-of-concern/authorisation/recommendation-for-inclusion-in-the-authorisation-list/authorisation-list
35. Regulation No 1223/2009 of the European Parliament and of the council of 30 November 2009 on cosmetic products.
36. Petersen, G., Rassmussen, D., Gustavson, K. (2007): Study on enhancing the Endocrine Disrupter priority list with a focus on low production volume chemicals. DG Environment, DHI: GIP/DOR/KIG/ERA. http://ec.europa.eu/environment/chemicals/endocrine/strategy/substances_en.htm
37. COMMISSION REGULATION (EU) No 1333/2008 of the European Parliament and of the Council on food additives by establishing a Union list of food additives approved for use in food additives, food enzymes, food flavourings and nutrients. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32011R1130
38. COMMISSION REGULATION (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:012:0001:0089:EN:PDF
39. Ch. Groshart, P. C.; Okkerman, P. C. 2000. Towards the establishment of a priority list of substances for further evaluation of their role in endocrine disruption - preparation of a candidate list of substances as a basis for priority setting. Final Report. http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm
40. European Medicines Agency. http://www.ema.europa.eu/ema/
41. Opinions of Scientific Committees of the European Commission. http://ec.europa.eu/index_de.htm
42. ECHA. List of restricted substances (Annex XVII to REACH 1907/2006). https://echa.europa.eu/addressing-chemicals-of-concern/restrictions/substances-restricted-under-reach
43. EU WFD, Water Framework Directive. Priority Substances and Certain Other Pollutants according to Annex II of Directive 2008/105/EC. http://ec.europa.eu/environment/water/water-framework/priority_substances.htm
44. FAO - Food and Agriculture Organization of the United Nations. http://www.fao.org/home/en/
45. Food and Drugs Adiministration. List of Indirect Additives Used in Food Contact Substances. Stand 14.11.2011. http://www.accessdata.fda.gov/scripts/fcn/fcnNavigation.cfm?rpt=iaListing
46. Dr. David Wishart, FooDB. This project is supported by The Metabolomics Innovation Centre (TMIC). TMIC is funded by Genome Alberta, Genome British Columbia, and Genome Canada. http://foodb.ca/
47. GENE-TOX - US-EPA Genetic toxicology (mutagenicity) test data on over 3000 chemicals. http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?GENETOX

48. GESTIS-database on hazardous substances. Information system on hazardous substances ofIFA, the German Institute for Occupational Safety and Health of the German Social Accident Insurance. http://gestis.itrust.de/nxt/gateway.dll?f=templates&fn=default.htm&vid=gestisdeu:sdbdeu
49. GHS – Australia of Australia List of Chemicals and their assigned GHS Classification. http://hcis.safeworkaustralia.gov.au/HazardousChemical
50. GHS – Japan of Japanese List of Chemicals and their assigned GHS Classification. http://www.safe.nite.go.jp/english/ghs/ghs_manuals.html
51. GHS – Korea of Korea List of Chemicals and their assigned GHS Classification. http://ncis.nier.go.kr/ghs/
52. GHS – New Zealand of New Zealand List of Chemicals and their assigned GHS Classification. http://www.chemsafetypro.com/Topics/NZ/HSNO_Act_Hazardous_Substances_and_New_Organisms_Act.html
53. The Good Scents Company Information System. http://www.thegoodscentscompany.com/
54. P Grandjean, PJ Landrigan. Developmental neurotoxicity of industrial chemicals. www.thelancet.com 2006:1-12. DOI:10.1016/S0140-6736(06)69665-7. http://reach-compliance.eu/english/documents/studies/neurotoxity/PGrandjean-PjLandrigan.pdf
55. IPCC Third Assessment Report - Climate Change 2001 - Complete online versions. Chapter 6. Radiative Forcing of Climate Change. Table 6.7: Direct Global Warming Potentials (mass basis) relative to carbon dioxide. Edited by the UNEP and WMO. https://www.ipcc.ch/ipccreports/tar/wg1/pdf/WG1_TAR-FRONT.PDF
56. HERA: Human and Environmental Risk Assessment on ingredients of household cleaning products. http://www.heraproject.com/RiskAssessment.cfm
57. HSDB - Hazardous Substances Data Bank. http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB
58. HSNO Chemical Classification Information Database. http://www.epa.govt.nz/Pages/default.aspx
59. Agents Classified by the IARC Monographs. http://monographs.iarc.fr/ENG/Classification/
60. IEH (2012): A review of latest endocrine disrupting chemicals research implications for drinking water. Final Report DWI:70/2/266.
61. The International Fragrance Association (IFRA) Standards Library, and List of fragrance materials not supported for use due to insufficient data. http://www.ifraorg.org/en-us/standards#.WXn0GUmQyUk
62. International Labour Organization. International Chemical Safety Cards (ICSC) database. http://www.ilo.org/safework/info/publications/WCMS_113134/lang--en/index.htm
63. IPCS INCHEM -Chemical Safety Information from Intergovernmental Organizations. http://www.inchem.org/
64. INGENTA - Scientific search machine. Ingentaconnect.com. http://www.ingentaconnect.com/
65. U.S. Environmental Protection Agency. Integrated Risk Information System (IRIS). http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?IRIS
66. ITER - International Toxicity Estimates for Risk - Online Database. Edited by: National Library of Medicine. http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?iter
67. IVDK - Informationsverbund Deutscher Kliniken. http://www.ivdk.org/en/about/portrait
68. Japan Existing Chemical Data Base. Ministry Of Health, Labor and Welfare, Japan (MHLW). http://dra4.nihs.go.jp/mhlw_data/jsp/SearchPageENG.jsp
69. VOC emissions limitations in France - AFSSET Guideline. http://www.anses.fr/sites/default/files/documents/AIR2004et0011Ra-2.pdf
70. Committee for Health-related Evaluation of Building Products: Health-related Evaluation Procedure for Volatile Organic Compounds Emissions (VOC and SVOC) from Building Products, AgBB - February 2015. https://www.umweltbundesamt.de/en/topics/health/commissions-working-groups/committee-for-health-related-evaluation-of-building
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75. NTP - Database of the National Toxicology Program. https://www.niehs.nih.gov/research/resources/databases/cebs/index.cfm
76. National Toxicology Program. Reports on carcinogens. Edited by: National Health Institute. http://ntp.niehs.nih.gov/?objectid=03C9B512-ACF8-C1F3-ADBA53CAE848F635
77. E-chem portal; The Global Portal to Information on Chemical Substances. http://www.echemportal.org/echemportal/propertysearch/page.action?pageID=9
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