



Manual Railway Industry Substance List

Version: March 2011

Content

1. Scope	3
2. "Railway Industry Substance List"	4
2.1. Substance List search function	4
2.1.1 Download Substance List.....	4
2.1.2 Manual	5
2.1.3 UNIFE Category	5
2.1.4 Information on typical use	5
2.1.5 Explanation R phrases	5
2.1.6 Explanation H Codes	5
2.2 Publications	5
2.2.1 UNIFE Position Papers on REACH.....	5
2.2.2 UNIFE Position Papers on RoHS.....	5
2.3 Links to other databases.....	5
3. "Railway Industry Substance List" content	6
3.1 Description of the content	6
3.2 Excel version (full)	8
3.3 Excel version (simplified)	8
3.4 Online Version	8
3.4.1 How to use the "Substance List search function"	8
3.4.2 Result page	10
3.4.2.1 List format	10
3.4.2.2 Table format	11
3.4.3 Detailed information for one substance.....	11
4. About UNIFE	12

1. Scope

UNIFE, the railway industry association has been developing a substance database which shows the prohibited in area of restriction and declarable for assessment (that shall be avoided) chemicals used specifically by the railway industry. This database aims to provide information to suppliers and sub-suppliers on which materials and substances must not or should not be used.

This database version has been developed by AGIMUS and UNIFE Chemical Risks topical group on the basis of German Railway industry association (VDB).

The list will be updated at least every 6 months and on an ongoing basis if major regulatory changes are published (e.g. update on the candidate list).

The substances in the “Railway Industry Substance List” are classified accordingly to the following Definitions.

UNIFE Categories:

Prohibited in Area of Restriction, Acronym: P(AR)

A substance classified as Prohibited shall not be present in finished goods, parts or components, defined in the “area of restriction” Field. This is applicable to the entire scope of supply. This classification is due to legal prohibition provisions and these substances shall not be present in the delivery in that area. It must be noted that in some cases the same substance may be classified as Prohibited in a given area of restriction and as Declarable for Assessment in all other applications.

Declarable

A substance classified as Declarable shall be declared in writing to the customer prior to delivery if present in the scope of supply. Declarable substances are separated into two categories:

Declarable for Assessment, Acronym: D(FA)

A substance classified as Declarable for Assessment shall not be present in the scope of supply unless assessment for use has been granted by the customer. If the scope of supply contains a D (FA) Substance, a derogation shall be requested and granted by the customer prior to delivery of the goods.

It must be noted that in some cases the same substance may be classified as Prohibited in a given area of restriction and as Declarable for Assessment in all other applications.

Declarable for Information, Acronym: D(FI)

A substance classified as D(FI) shall be declared to the customer for their information. All substances that are not listed in the UNIFE database and that are classified as “Dangerous” according to the CLP Regulation (Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of substances and mixtures) shall be considered as D(FI).

Contact person:

[Judit Sandor](#)

Sustainability and Environment Manager

2. "Railway Industry Substance List"

The substance evaluation and declaration have made for the specific uses in the railway industry. The UNIFE "Railway Industry Substance List" contains information about approx. 180 substances.

The data contained in this Version (1.0) was processed in January 2011.

You find the current "Railway Industry Substance List" on the website:

<http://www.unife-database.org/>

Start page

The screenshot shows the website's header with logos for UNIFE (The European Rail Industry) and DIE BAHNINDUSTRIE (VDB Verband der Bahnindustrie in Deutschland e.V.). A green banner reads "RAILWAY INDUSTRY SUBSTANCE LIST". A large yellow arrow points to the "Substance List search function" link in the left sidebar. The main content area includes the title "Railway Industry Substance List", an introductory paragraph about materials, a note on the creation of the list, and a link to the search page. The version number "Version 31.01.2011" is displayed at the bottom left of the content area.

2.1. Substance List search function

With this link you can activate the "Railway Industry Substance List" search page.

2.1.1 Download Substance List

On this page you can find the links for the download of the actual and historic versions in Excel format or PDF. The document contains the "Railway Industry Substance List" in detail. This Excel document is the reference on which the database depends on.

Also you can download a simplified Excel document which contains an extract of the complete List (Group of substance, substance, CAS-number, EINECS, UNIFE category, limit value, area of restriction).

For documentation and tractability it is possible to download the historic versions of the database (after the release of new versions).

2.1.2 Manual

On this page you can find the manual.

2.1.3 UNIFE Category

Contains the definitions for the UNIFE Category. See chapter 3.2 for details.

2.1.4 Information on typical use

Contains a list that provides information on which substances could occur in which applications. The applications mentioned for the individual substances listed are given as examples and do not claim to be exhaustive. The list contains substances which it may be useful to know about.

2.1.5 Explanation R phrases

Contains a listing of possible R phrases.

2.1.6 Explanation H Codes

Contains a listing of possible H Codes from CLP classification.

2.2 Publications

2.2.1 UNIFE Position Papers on REACH

Here you can find general information from UNIFE about the Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

2.2.2 UNIFE Position Papers on RoHS

Here you can find general information from UNIFE about the directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment 2002/95/EC referred as the Restriction of Hazardous Substances Directive - RoHS.

2.3 Links to other databases

This page contains external links to other databases that may be useful. These links are provided solely for the convenience of the users and not as an endorsement of third party databases.

3. “Railway Industry Substance List” content

3.1 Description of the content

The following overview shows the data structure:

- **No.** (only Excel Version)
This field contains a consecutive number. Substances which are classified as D(FA) and P(AR) have two lines. The consecutive number of the respective D(FA) substance has the extension xx.1.
- **Group of substance**
Here you find the substance type or chemical family. For example :
 - Halogenated means substances that contains halogen atoms : Chlorine, Bromine, Fluorine, Iodine, and Astatine
 - Aromatic means substances that contain complete unsaturated cycle such as benzene or naphthalene
- **Substance**
This field contains the substance name and partially some general acronyms or abbreviations of the substance.
- **CAS number**
The CAS-number is the identification number of "Chemical Abstracts Service". The number presents the unique identifier.
- **EINECS**
The EINECS -numbers are made up of register numbers from EINECS (European Inventory Existing Chemical Commercial Substances) and ELINCS (European List of New Chemical Substances).
- **R-phrases**
R-phrases (short for Risk Phrases) are defined in Annex III of European Union Directive 67/548/EEC: Nature of special risks attributed to dangerous substances and preparations. The list was consolidated and republished in Directive 2001/59/EC, where translations into other EU languages may be found.
- **CLP classification**
H-Code (Hazard Statements) statements of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). They are intended to form a set of standardized phrases about the hazards of chemical substances and mixtures that can be translated into different languages. They serve the same purpose as the R-phrases, which they are intended to replace.
- **UNIFE Category**

P(AR): Prohibited (in Area of Restriction):

A substance classified as Prohibited shall not be present in finished goods, parts or components, defined in the “area of restriction” Field. This is applicable to the entire scope of supply. This classification is due to legal prohibition provisions and these substances shall not be present in the delivery in that area. It must be noted that in some cases the same substance may be classified as Prohibited in a given area of restriction and as Declarable for Assessment in all other applications.

D(FA): Declarable for Assessment:

A substance classified as Declarable for Assessment shall not be present in the scope of supply unless assessment for use has been granted by the customer. If the scope of supply contains a D (FA) Substance, a derogation shall be requested and granted by the customer prior to delivery of the goods.

It must be noted that in some cases the same substance may be classified as Prohibited in a given area of restriction and as Declarable for Assessment in all other applications.

D(FI) Declarable for Information:

A substance classified as D(FI) shall be declared to the customer for their information. All substances that are not listed in the UNIFE database and that are classified as "Dangerous" according to the CLP Regulation (Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of substances and mixtures) shall be considered as D(FI).

▪ EU Legislation

This field contains a reference to relevant EU legislations.

▪ National Legislation EU

The content of this field is the EU members national provisions when available. This information is not comprehensive and just for information only.

▪ Regulation non EU

Reference to concerning non EU legislation. This information is not comprehensive and just for information only.

▪ Comment

This field can contain some additional information.

▪ Area of restriction

This field contains information about the application where the substance is prohibited or declarable.

▪ Typical use

This field contains examples of typical use of the substance. The listed information is indicative and not comprehensive. The use in other applications is possible.

▪ Limit value

This field can contain the limit value at which the substances might be declarable/ Prohibited.

▪ Date of inclusion

This field contains the date of the first entry of the substance to the UNIFE database. All Substances which belong to the first release have the 2011-01-31 as date of inclusion.

▪ Date of last modification

This field contains the date of the last revision/modification which was made in the list for the substance. All Substances which belong to the first release have the 2011-01-31 as date of last modification.

▪ Used in

Here you can find a listing of different possibilities for the use of the Substance in different categories. Please note that this information is indicative and not comprehensive.

3.2 Excel version (full)

The picture shows a short abstract of the complete excel version of the “Railway Industry Substance List”.

N	Group of substance	Substance	UNIFE category	CAS-number	EINECS	R-phrases	CLP classification	EU Legislation	National Legislation on EU	Regulation non EU	Area of restriction	Limit Value	Comment	Typical use	Date of inclusion	Date of last modification	Electric and electronic equipment	Capacity and transformers
11	halogenated hydrocarbons, aliphatic	1,1,1,2-tetrachloroethane	D(FA)	630-20-6	211-031-1	22, 40, 41	H332, EUH059	Regulation (EC) No 1907/2006, Annex XVII	France: AR 12591996; Germany: ChemVerbot 9		In all applications except in those areas that are prohibited.	0,10%	Should not be used in concentration equal to or greater than 0,1% by weight in rubber and preparation placed on the market for rail vehicles and public order in diffusive application such as in surface cleaning and cleaning of fabric. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of dangerous rubber and preparation, the packages of rubber and preparation containing them in concentration equal to or greater than 0,1% by weight in rubber and preparation placed on the market for rail vehicles and public order in diffusive application such as in surface cleaning and cleaning of fabric. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of dangerous rubber and preparation, the packages of rubber and preparation containing them in concentration equal to or greater than 0,1% by weight in rubber and preparation placed on the market for rail vehicles and public order in diffusive application such as in surface cleaning and cleaning of fabric.	lubricants, cleaning agents, coolant, propellant	31.01.10	31.01.10		
1	halogenated hydrocarbons, aliphatic	1,1,1,2-tetrachloroethane	P(AR)	630-20-6	211-031-1	22, 40, 41	H332, EUH059	Regulation (EC) No 1907/2006, Annex XVII	France: AR 12591996; Germany: ChemVerbot 9		In diffusive application such as in surface cleaning and cleaning of fabric.	0,10%	Should not be used in concentration equal to or greater than 0,1% by weight in rubber and preparation placed on the market for rail vehicles and public order in diffusive application such as in surface cleaning and cleaning of fabric. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of dangerous rubber and preparation, the packages of rubber and preparation containing them in concentration equal to or greater than 0,1% by weight in rubber and preparation placed on the market for rail vehicles and public order in diffusive application such as in surface cleaning and cleaning of fabric.	lubricants, cleaning agents, coolant, propellant	31.01.10	31.01.10		
11	halogenated hydrocarbons, aliphatic	1,1,1-trichloroethane; methyl chloroform	D(FA)	71-55-6	200-794-3	20, 59	H332, EUH059	Regulation (EC) No 1907/2006, Annex XVII	France: AR 12591996; Germany: ChemVerbot 9	North America: US EPA ODS	In all applications except in those areas that are prohibited.	0,10%	Should not be used in concentration equal to or greater than 0,1% by weight in rubber and preparation placed on the market for rail vehicles and public order in diffusive application such as in surface cleaning and cleaning of fabric.	lubricants, cleaning agents, coolant, propellant	31.01.10	31.01.10		

3.3 Excel version (simplified)

The picture shows a short abstract of the simplified excel version of the “Railway Industry Substance List”.

No.	Group of substance	Substance	UNIFE category	CAS-number	CLP classification	Limit Value
1.1	halogenated hydrocarbons, aliphatic	1,1,1,2-tetrachloroethane	D(FA)	630-20-6	tbc	0,10%
1	halogenated hydrocarbons, aliphatic	1,1,1,2-tetrachloroethane	P(AR)	630-20-6	tbc	0,10%
2.1	halogenated hydrocarbons, aliphatic	1,1,1-trichloroethane; methyl chloroform; Solvent III; 1,1,1-TCE	D(FA)	71-55-6	H332, EUH059	0,10%
2	halogenated hydrocarbons, aliphatic	1,1,1-trichloroethane; methyl chloroform; Solvent III; 1,1,1-TCE	P(AR)	71-55-6	H332, EUH059	0,10%
3.1	halogenated hydrocarbons, aliphatic	1,1,2,2-tetrachloroethane	D(FA)	79-34-5	H330, H310, H411	0,10%
3	halogenated hydrocarbons, aliphatic	1,1,2,2-tetrachloroethane	P(AR)	79-34-5	H330, H310, H411	0,10%
4.1	halogenated hydrocarbons, aliphatic	1,1,2-trichloro-1,2,2-trifluoroethane; R 113	D(FA)	76-13-1	tbc	0,10%

3.4 Online Version

3.4.1 How to use the “Substance List search function”

Here you have the different possibilities to search for information. The result of the search is a list of substances or an HTML-table, which contains all information for the substances for which was searched for.

Multiple selection is possible for the fields “Group of substances”, “Regulations” and “Use in part”. Please hold the CTRL (control) button and select the content for the multiple selection.

It is not necessary to fill out each field. If the entered information is contradicting then you will have no result.



Substance List

Substance List search function

- Download Substance List
- Manual
- UNIFE Category
- Information on typical use
- Explanation R Phrases
- Explanation H Codes
- Publications
 - UNIFE Position Papers on REACH
 - UNIFE Position Papers on RoHS
- Link to other databases

Version 01.03.2011

Railway Industry Substance List search

UNIFE Category:

Group of substances: (Multiple selection is possible)

acid, inorganic
 acrylates and acetates
 aldehyde
 alkylphenol ethoxylates (APEOs) and metabolites

Substance:

Substance search term:

CAS: (xx-xx-xx)

EINECS: (xxx-xxx-x)

R phrases:

CLP classification:

EU Legislation: (Multiple selection is possible)

Annex XIV
 Annex XVII
 Decision 2005/618/EC
 Decision 2005/673/EC

Use in part: (Multiple selection is possible)

Electric and electronic equipment
 Capacitors and transformers
 Cable and wires
 Fixed batteries

Modifications since:

Search result table

The search functions of the substance list are:

- **UNIFE Category**
In this field you have the possibility to choose between P(AR), D(FA) and < all >.
- **Group of substances**
This field contains a list of all used Group of substances in the list. Here you can select one or multiple groups of substances. (Multiple selection is possible)
- **Substance**
In this field you have the possibility to choose between the listed substances.
- **Substance search term**
This is a free text search function for substances. Enter a substance name or a part of a name for search. Only listed substances can be found.
- **CAS: (xx-xx-xx)**
In this field you can enter a complete CAS number or only a part of a CAS number. Example: 8001-58-9
- **EINECS: (xxx-xxx-x)**
In this field you can enter a complete EINECS number or only a part of an EINECS number. Example: 232-287-5

- **R phrases**
In this field you can enter a R phrase number. Example: 45.
- **CLP classification**
In this field you can enter a H code of CLP classification. Example: H350.
- **EU Legislation**
This field contains a list of all EU Legislations which are included in the list. Here you can select one legislation or multiple legislations. (Multiple selection is possible)
- **Use in part**
This field contains a list of different possibilities for the use of Substances. Here you can select one or multiple possibilities for the use. (Multiple selection is possible)
- **Modifications since**
In this field you can enter a date to list all substances in the list with a more recent date than the entered value. The format is DD.MM.YYYY. Example: 01.01.2011
- **Search result table**
This is the option for the results to be presented as either a table or list. If the checkbox " Search result table " is activated, then a HTML-table with the result of the search will be created after clicking the search button.

3.4.2 Result page

After setting the search filter you can click on the "Search" button. The result page contains a list of matching substances.

3.4.2.1 List format

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THE EUROPEAN RAIL INDUSTRY

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HOME

RAILWAY INDUSTRY SUBSTANCE LIST

Substance List

- **Substance List search function**
- Download Substance List
- Manual
- UNIFE Category
- Information on typical use
- Explanation R Phrases
- Explanation H Codes
- Publications
- UNIFE Position Papers on REACH
- UNIFE Position Papers on RoHS
- Link to other databases

Version 01.03.2011

Railway Industry Substance List search result

Search criteria: P(AR), D(FA)

1,1,1,2-tetrachloroethane (D(FA))
 1,1,1,2-tetrachloroethane (P(AR))
 1,1,1-trichloroethane; methyl chloroform; Solvent 111; 1,1,1-TCE (D(FA))
 1,1,1-trichloroethane; methyl chloroform; Solvent 111; 1,1,1-TCE (P(AR))
 1,1,2-tetrachloroethane (D(FA))
 1,1,2-tetrachloroethane (P(AR))
 1,1,2-trichloro-1,2,2-trifluoroethane; R 113 (D(FA))
 1,1,2-trichloro-1,2,2-trifluoroethane; R 113 (P(AR))
 1,1,2-trichloroethane (D(FA))
 1,1,2-trichloroethane (P(AR))
 1,1,2-trichloroethane (P(AR))
 1,1-dichloroethylene; vinylidene chloride (D(FA))
 1,1-dichloroethylene; vinylidene chloride (P(AR))
 1,2,4-trichlorobenzene; 1,2,4-TCB (D(FA))
 1,2,4-trichlorobenzene; 1,2,4-TCB (P(AR))
 1,2-dibromotetrafluoroethane; Halon 2402 (P(AR))
 1,2-dichloro-1,1,2,2-tetrafluoroethane; R 114 (P(AR))
 1,4-bis(2,3-epoxypropoxy)butane; butanedioldiglycidyl ether (D(FA))
 1,4-dichlorobenzene; p-dichlorobenzene (D(FA))
 1,4-dichlorobenzene; p-dichlorobenzene (P(AR))
 1,4-dichlorobenzene; p-dichlorobenzene (P(AR))
 1,4-dihydroxybenzene; hydroquinone; quinol (D(FA))
 1-chloro-1,1-difluoroethane; HCFC-142b (D(FA))
 1-chloro-1,1-difluoroethane; HCFC-142b (P(AR))

3.4.2.2 Table format

To get the result as table format please activate the “search result table” field. Please use CTRL-A and CTRL-C to copy the table for insertion in Office Applications.



[Go back to search](#)

Version 01.03.2011

(Please use CTRL-A and CTRL-C to copy the table for insertion in Office Applications.)

This list contains an overview of substances in products, for which there are legal provisions covering information and notification obligations and restrictions on placing on the market - predominantly in Europe. The list does not claim to be exhaustive. As regards questions of detail, e.g. concerning statutory exemptions or transitional arrangements, it is essential to refer to the complete text of the regulations.

Search criteria: P(AR), D(FA)

No.	Group of substance	Substance	UNIFE Category	CAS-number	EINECS	R-phrases	CLP classification	EU Legislation	National Legislation EU [1]
1.1	halogenated hydrocarbons, aliphatic	1,1,1,2-tetrachloroethane	D(FA)	630-20-6	211-135-1	22, 40, 41	tbc	Regulation (EC) No 1907/2006, Annex XVII	France: AR 13101996; German: ChemVerbotsV
1	halogenated hydrocarbons, aliphatic	1,1,1,2-tetrachloroethane	P(AR)	630-20-6	211-135-1	22, 40, 41	tbc	Regulation (EC) No 1907/2006, Annex XVII	France: AR 13101996; German: ChemVerbotsV
2.1	halogenated hydrocarbons, aliphatic	1,1,1-trichloroethane, methyl chloroform; Solvent 111; 1,1,1-TCE	D(FA)	71-55-6	200-756-3	20, 59	H332, EUH059	Regulation (EC) No 1907/2006, Annex XVII, Regulation (EC) No 1105/2009, Regulation	France: AR 13101996; German: ChemVerbotsV

3.4.3 Detailed information for one substance

For more detailed information you can click in the result page on a link of a substance, which is stored in the database.



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[HOME](#)

RAILWAY INDUSTRY SUBSTANCE LIST



Substance List

[Substance List search function](#)

- Download Substance List
- Manual
- UNIFE Category
- Information on typical use
- Explanation R Phrases
- Explanation H Codes
- Publications
 - UNIFE Position Papers on REACH
 - UNIFE Position Papers on RoHS
- Link to other databases

Version 01.03.2011

1,1,1,2-tetrachloroethane

UNIFE Category: D(FA)

Group of substances: halogenated hydrocarbons, aliphatic

CAS-number: 630-20-6

EINECS: 211-135-1

R phrases: 22, 40, 41

CLP classification: tbc

EU Legislation:
Regulation (EC) No 1907/2006, Annex XVII

National Legislation EU: (Not comprehensive, for information only)
France: AR 13101996; Germany: ChemVerbotsV

Regulation non EU: (Not comprehensive, for information only)

Area of restriction:
In all applications except in those areas that are prohibited.

Limit value:
0,10%

Comment:
Shall not be used in concentrations equal to or greater than 0,1 % by weight in substances and preparations placed on the market for sale to the general public and/or in diffusive applications

4. About UNIFE

UNIFE represents the European Rail Industry in Brussels since 1992. The Association gathers 73 of Europe's leading large and medium-sized rail supply companies active in the design, manufacture, maintenance and refurbishment of rail transport systems, subsystems and related equipment. A further one thousand suppliers of railway equipment partake in UNIFE activities through 15 national rail industry associations. UNIFE members have an 80% market share in Europe and supply more than 50% of the worldwide production of rail equipment and services.

UNIFE represents its members' interests at the level of both European and international institutions. On the technical side, UNIFE works on the setting of interoperability standards and coordinates EU-funded research projects that aim at the technical harmonisation of railway systems. The association is one of the supporting bodies of the European Railway Agency.

Legal aspects of usage

All substance data is provided to the best of our knowledge and the website has been tested comprehensive, nevertheless errors can not be excluded completely.

Please take to notice that UNIFE can not be taken responsible for any wrong data about a substance, wrong search results or any malfunction of the website.

We constantly want to improve the quality of the Substance List. If you encounter any errors or inconsistencies please take the time and send us a email to Judit Sandor.

Contact person:

[Judit Sandor](#)

Sustainability and Environment Manager