# toxvaldbmain

September 23, 2025

```
Type Package
Title Builds the ToxValDB v9.7.0 Database
Version 9.7.0
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Description
      ToxValDB is a database containing quantitative records from in vivo toxicology studies from
      many sources. The database has 2 main parts - toxval_source containing
      source data in separate tables, and the main toxval schema which combines data from multi-
      ple sources
      into a single format. This package moves data from toxval_source to toxval.
      Data is read from files or other databases into toxval_source and then pulled
      into toxval where terms are converted to standard values. This version is setup to build Tox-
      ValDB v9.7.0.
Imports DBI,
      RMySQL,
      openxlsx,
      dplyr,
      tidyr,
      stringr,
      tibble,
      janitor,
      XML,
      miniUI,
      RCurl,
      gsubfn,
      textclean,
      magrittr
License MIT + file LICENSE
Encoding UTF-8
LazyData true
RoxygenNote 7.3.2
Suggests knitr,
     rmarkdown
VignetteBuilder knitr
```

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#### **Description**

Check CAS RN validity via checksum method

For a suspected CAS RN, determine validity by calculating final digit checksum

#### Usage

```
cas_checkSum(x)
```

#### **Arguments**

Х

chr. Input vector of values to check. Standard CAS notation using hyphens is fine, as #' all non-digit characters are stripped for checksum calculation. Each element of x should contain #' only one suspected CAS RN to check.

#### **Details**

This function performs a very specific type of check for CAS validity, namely whether the final digit checksum follows the CAS standard. By default, it also ensures that the digit length is compatible with CAS standards.

#### Value

A logical vector of length x denoting whether each x is a valid CAS by the checksum method. NA input values will be set 0 (FAIL).

#### See Also

```
str_detect, str_pad
```

#### **Examples**

```
cas_good <- c("71-43-2", "18323-44-9", "7732-18-5") # benzene, clindamycin, water cas_bad <- c("61-43-2", "18323-40-9", "7732-18-4") # single digit change from good cas_checkSum(c(cas_good, cas_bad))
```

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```
check.toxval_type.route.units
```

Output distinct combinations of toxval\_type, exposure\_route, and toxval units to check

#### **Description**

Output distinct combinations of toxval\_type, exposure\_route, and toxval\_units to check

#### Usage

```
check.toxval_type.route.units(
  toxval.db,
  source = NULL,
  subsource = NULL,
  load.dict = NULL
)
```

#### **Arguments**

toxval.db The version of toxvaldb to use.

Source to check source

subsource Subsource to check (NULL default)

load.dict Name of dictionary containing expected combinations, or NULL if dictionary

should not be read

chem.check.v2

Check the chemicals from a file Names with special characters are cleaned and trimmed CASRN are fixed (dashes put in, trimmed) and check sums are calculated The output is sent to a file called chemcheck.xlsx in the source data file One option for using this is to edit the source file until no errors are found

#### **Description**

Check the chemicals from a file Names with special characters are cleaned and trimmed CASRN are fixed (dashes put in, trimmed) and check sums are calculated The output is sent to a file called chemcheck.xlsx in the source data file One option for using this is to edit the source file until no errors are found

#### Usage

```
chem.check.v2(res0, in_source = NULL, verbose = FALSE)
```

#### **Arguments**

The data frame in which chemicals names and CASRN will be replaced res0 The source to be processed. If source=NULL, process all sources in\_source

verbose If TRUE, print diagnostic messages clean.last.character 7

#### Value

Return a list with fixed CASRN and name and flags indicating if fixes were made: res0=res0,name.OK=name.OK,casrn.C

```
clean.last.character clean.last.character
```

# Description

Clean unneeded characters from the end of a string

### Usage

```
clean.last.character(x)
```

### **Arguments**

х

String to be cleaned

#### **Details**

**DETAILS** 

#### Value

The cleaned string

#### See Also

```
str_trim
```

# **Examples**

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

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clean.toxval.by.source

Delete a portion of the contents of the toxval database

# Description

Delete a portion of the contents of the toxval database

### Usage

```
clean.toxval.by.source(toxval.db, source)
```

# Arguments

toxval.db The version of toxval from which the data is deleted.

source The data source name

#### Value

The database will be altered

compare.versions

Compare versions of toxval

# Description

Compare versions of toxval

# Usage

```
compare.versions(db1, db2)
```

### **Arguments**

db1	The old	version of	of the	database
ub i	The old	version (	or the	uatabase

db2 The new version of the database

duplicate.hunter 9

duplicate.hunter

Diagnose duplicates

# Description

Diagnose duplicates

#### Usage

```
duplicate.hunter(toxval.db, source = NULL, source_table = NULL)
```

### Arguments

toxval.db Database version

source The source to be updated

#### Value

Write a file with the results

```
ecotox.select.study.duration
```

 $ECOTOX\ Select\ study\_duration$ 

### Description

Function to select the appropriate study\_duration value from conc1\_\* fields

# Usage

```
ecotox.select.study.duration(in_data, dur_col = NULL)
```

## **Arguments**

in\_data

Input ECOTOX dataframe

#### Value

Processed dataframe with new study\_duration\_values, units, and qualitifer fields

ecotox.select.toxval.numeric

ECOTOX Select toxval\_numeric

# Description

Function to select the appropriate toxval\_numeric value from conc1\_\* fields

### Usage

```
ecotox.select.toxval.numeric(in_data)
```

### **Arguments**

#### Value

Processed dataframe with new toxval\_numeric, units, and qualitifer fields

ecotox.species.dictionary

Extract the ECOTOX species dictionary from the ECOTOX data

### **Description**

Extract the ECOTOX species dictionary from the ECOTOX data

#### Usage

```
ecotox.species.dictionary(toxval.db, do.load = F, sys.date = "2023-05-03")
```

#### **Arguments**

toxval.db	The version of toxval into which the tables are loaded.
do.load	If TRUE, load the data from the input file and put into a global variable
source.db	The version of toxval source - used to manage chemicals
verbose	Whether the loaded rows should be printed to the console.
log	If TRUE, send output to a log file

export.all.by.source 11

```
export.all.by.source Build a data frame of the data from toxval and export by source as a series of xlsx files
```

### Description

Build a data frame of the data from toxval and export by source as a series of xlsx files

#### Usage

```
export.all.by.source(
  toxval.db,
  source = NULL,
  subsource = NULL,
  include.qc.status = TRUE
)
```

# Arguments

toxval.db Database version

source The source to be updated subsource The subsource to be updated include.qc.status

Boolean whether to include teh qc\_status field, or filter out "fail" records. Default is TRUE. #' @return for each source writes an Excel file with the name ../export/export\_by\_source\_data/toxval\_all\_toxval.db\_source.xlsx

#### **Description**

Function to export log of qc\_status "fail" records and delete fail records from ToxValDB.

#### Usage

```
export.delete.qc_status.fail.by.source(toxval.db, source, subsource)
```

## Arguments

toxval.db The database version to use

source The source name

subsource The specific subsource to process, if desired (Default: NULL)

#### Value

None. XLSX log genrated and SQL UPDATE statements are pushed to the database.

12 export.for.oppt

```
export.for.missing.species
```

Export the records with missing species and point of departure values

### Description

Export the records with missing species and point of departure values

### Usage

```
export.for.missing.species(toxval.db, source = NULL)
```

#### **Arguments**

toxval.db Database version

source The source to be updated #' @return for each source writes an Excel file with

the name ../export/export\_by\_source\_data/toxval\_all\_toxval.db\_source.xlsx

export.for.oppt

Build a data frame of the PODs and exports as xlsx

#### **Description**

Build a data frame of the PODs and exports as xlsx

### Usage

```
export.for.oppt(toxval.db, file.name = "TSCA PICS")
```

# **Arguments**

toxval.db Database version

file.name If not NA, this is a file containing chemicals, and only those chemicals will be

exported

#### Value

writes an Excel file with the name ../export/toxval\_pod\_summary\_[human\_eco]\_Sys.Date().xlsx

export.for.toxval.qc 13

export.for.toxval.qc Build a data frame of the PODs and exports as xlsx

### **Description**

Build a data frame of the PODs and exports as xlsx

### Usage

```
export.for.toxval.qc(toxval.db, source = NULL)
```

### **Arguments**

toxval.db Database version

human\_eco Either 'human health' or 'eco'

file.name If not NA, this is a file containing chemicals, and only those chemicals will be

exported

#### Value

writes an Excel file with the name ../export/toxval\_pod\_summary\_[human\_eco]\_Sys.Date().xlsx

```
export.for.toxvaldb.manuscript
```

Build a data frame of the data for the toxval manuscript

#### **Description**

Build a data frame of the data for the toxval manuscript

### Usage

```
export.for.toxvaldb.manuscript(toxval.db)
```

# Arguments

toxval.db Database version

source The source to be updated

#### Value

Write a file with the results

### **Description**

Pull list of directories, files, and dictionaries used throughout the ToxValDB workflow.

#### Usage

```
export.input.dict.file.list()
```

#### Value

Dataframe with "folder\_name" field of files and folders in the toxval.config()\$datapath directory.

#### See Also

```
read_excel write_xlsx filter, pull, bind_rows, distinct
```

#### **Examples**

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

```
export.missing.dictionary.entries
```

Find "original" values that have not been included in the dictionaries and export them

### **Description**

Find "original" values that have not been included in the dictionaries and export them

# Usage

```
export.missing.dictionary.entries(
  toxval.db,
  source = NULL,
  subsource = NULL,
  report.only = FALSE
)
```

export.missing.strains 15

#### **Arguments**

toxval.db The version of toxval in which the data is altered.

source The source to be fixed. If source=NULL, fix all sources

subsource The subsource to be fixed (NULL default)

report only Whether to report or write/export data. Default is FALSE (write/export data)

#### Value

An excel file in dictionaries with the missing entries (if report.only=TRUE, return tibble) "missing dictionary entries Sys.Date.xlsx"  $\frac{1}{2}$ 

export.missing.strains

Set the strain information in toxval

#### **Description**

Set the strain information in toxval

#### Usage

```
export.missing.strains(toxval.db, date_string = "2024-02-27")
```

#### **Arguments**

toxval.db The version of the database to use date\_string The date of the latest dictionary version

export.missing.toxval\_type

Export any toxval\_types that are not in the toxval\_type dictionary

#### **Description**

Export any toxval\_types that are not in the toxval\_type dictionary

#### Usage

```
export.missing.toxval_type(toxval.db, report.only = FALSE)
```

#### **Arguments**

toxval.db The version of toxval in which the data is altered.

report.only Whether to report or write/export data. Default is FALSE (write/export data)

#### Value

An excel file in dictionaries with the missing entries (if report.only=TRUE, return tibble) "dictionary/missing/missing\_toxval\_type Sys.Date.xlsx"

```
export.toxvaldb.subset
```

Build a data frame of the data from toxval for a subset of chemicals

# Description

Build a data frame of the data from toxval for a subset of chemicals

#### Usage

```
export.toxvaldb.subset(toxval.db, filename)
```

### **Arguments**

toxval.db Database version

filename The name of the file the be imported - should be a short name that will be used

in the output filename. This is an xlsx file and needs a column labeled dtxsid

#### Value

Write a file with the results

# Description

Pull updated field information for source info dictionary

### Usage

```
export.update.source.info(toxval.db, source.db, dict_date = "2025-05-29")
```

# Arguments

toxval.db Database version

source.db The source to be updated

dict\_date Date stamp of the dictionary file to update

#### Value

Overwrite existing source info dictionary with updated fields

fill.chemical.by.source 17

```
fill.chemical.by.source
```

Fill the chemical table

### Description

Fill the chemical table

# Usage

```
fill.chemical.by.source(toxval.db, source, verbose = TRUE)
```

### Arguments

toxval.db The version of toxvaldb to use.

source The source to be used

verbose If TRUE, print out extra diagnostic messages

# Description

Set Toxval Defaults

### Usage

```
fill.toxval.defaults(toxval.db, mat)
```

#### **Arguments**

toxval.db The version of toxval from which to set defaults.

mat An input matrix of data

#### Value

The data matrix afer fixing

```
fill.toxval.defaults.global.by.source

Set Toxval Defaults globally, replacing blanks with -
```

#### **Description**

Set Toxval Defaults globally, replacing blanks with -

#### Usage

```
fill.toxval.defaults.global.by.source(
  toxval.db,
  source = NULL,
  subsource = NULL
)
```

#### **Arguments**

toxval.db The version of toxval from which to set defaults.

source The source to be fixed

subsource The subsource to be fixed (NULL default)

```
fix.all.param.by.source
```

Alter the contents of toxval according to an excel dictionary file with fields - exposure\_method, exposure\_route, sex,strain, study\_duration\_class, study\_duration\_units, study\_type, toxval\_type, exposure\_form, toxval\_subtype

# Description

Alter the contents of toxval according to an excel dictionary file with fields - exposure\_method, exposure\_route, sex,strain, study\_duration\_class, study\_duration\_units, study\_type, toxval\_type, exposure\_form, toxval\_subtype

#### Usage

```
fix.all.param.by.source(
  toxval.db,
  source = NULL,
  subsource = NULL,
  fill.toxval_fix = TRUE
)
```

#### **Arguments**

toxval.db The version of toxval in which the data is altered.

source The source to be fixed. If source=NULL, fix all sources subsource The subsource to be fixed (NULL default)

fill.toxval\_fix

If TRUE (default) read the dictionaries into the toxval\_fix table

#### Value

The database will be altered

```
fix.associated.pod.critical_effect
```

Appends associated POD information to critical\_effect for derived toxval\_types

### **Description**

Appends associated POD information to critical\_effect for derived toxval\_types

#### Usage

```
fix.associated.pod.critical_effect(res, map_fields)
```

#### **Arguments**

res The data to be altered

map\_fields The fields used to map entries to associated PODs

fix.casrn fix.casrn

### Description

Fix a CASRN that has one of several problems

# Usage

```
fix.casrn(casrn, cname = "", verbose = FALSE)
```

### **Arguments**

casrn Input CASRN to be fixed cname An optional chemical name verbose if TRUE, print the input values

# **Details**

**DETAILS** 

#### Value

the fixed CASRN

#### See Also

reexports

#### **Examples**

```
## Not run:
if(interactive()){
  fix.casrn("107028")
  # Expected output "107-02-8"
}
## End(Not run)
```

```
fix.critical_effect.icf.by.source
```

standardize critical\_effect in toxval table based on icf dictionary and toxval critical effects dictionary

### Description

standardize critical\_effect in toxval table based on icf dictionary and toxval critical effects dictionary

#### Usage

```
fix.critical_effect.icf.by.source(toxval.db, source, subsource = NULL)
```

### Arguments

toxval.db The version of toxvaldb to use.

source THe source to be fixed

subsource The subsource to be fixed (NULL default)

```
fix.dedup.hierarchy.by.source
```

Set qc\_status as "fail" for lesser priority duplicates

### Description

Set qc\_status as "fail" for lesser priority duplicates

#### Usage

```
fix.dedup.hierarchy.by.source(
  toxval.db,
  source = NULL,
  subsource = NULL,
  priority_list = NULL,
  subsource_priority_list = NULL,
  criteria = c("dtxsid"),
  report.only = FALSE
)
```

#### **Arguments**

toxval.db The version of toxvaldb to use.

source Source to be fixed

subsource Subsource to be fixed (NULL default)

priority\_list Named list describing source priority, with low priority index and high priority

value

subsource\_priority\_list

Named list of subsources to deprecate per source, source index/subsource value

criteria List of parameters used to make deduping decisions

report.only Whether to report or write/export data. Default is FALSE (write/export data)

```
fix.derived.toxval_type.by.source
```

Set select normalized toxval fields to '-' if the record is a select toxval\_type

#### **Description**

Set select normalized toxval fields to '-' if the record is a select toxval\_type

# Usage

```
fix.derived.toxval_type.by.source(
  toxval.db,
  source = NULL,
  subsource = NULL,
  report.only = FALSE
)
```

#### **Arguments**

toxval.db The version of the database to use

source The source to be fixed

subsource The subsource to be fixed (NULL default)

report.only Whether to update database or only report the results. Default FALSE.

fix.empty.by.source Set all empty cells in toxval to '-'

#### **Description**

Set all empty cells in toxval to '-'

#### Usage

```
fix.empty.by.source(toxval.db, source = NULL, subsource = NULL)
```

#### **Arguments**

toxval.db The version of toxval in which the data is altered.

source The source to be fixed

subsource The subsource to be fixed (NULL default)

#### Value

The database will be altered

### **Description**

Set all empty cells in record\_source to '-'

### Usage

```
fix.empty.record_source.by.source(toxval.db, source = NULL)
```

#### **Arguments**

toxval.db The version of toxval in which the data is altered.

source The source to be fixed

#### Value

The database will be altered

fix.exposure.params 23

#### **Description**

Fix the exposure fields: exposure\_method, exposure\_route, exposure\_form based on a 3 column dictionary ~/dictionary/exposure\_route\_method\_form.xlsx

#### Usage

```
fix.exposure.params(
  toxval.db,
  source = NULL,
  subsource = NULL,
  report.only = FALSE
)
```

### **Arguments**

toxval.db The version of toxval in which the data is altered.

source The source to be fixed. If source=NULL, fix all sources

subsource The subsource to be fixed (NULL default)

report.only Whether to report or write/export data. Default is FALSE (write/export data)

fill.toxval\_fix

If TRUE (default) read the dictionaries into the toxval\_fix table

#### Value

The database will be altered (if report.only=TRUE, return missing entries)

```
fix.exposure_route.not_specified.by.source
fix.exposure_route.not_specified.by.source
```

#### **Description**

Function to use a dictionary file to update cases where exposure\_route reported as "not specified".

#### Usage

```
fix.exposure_route.not_specified.by.source(toxval.db, source, subsource)
```

#### **Arguments**

toxval.db The database version to use
source The source name
subsource The specific subsource to process, if desired (Default: NULL)

#### **Details**

**DETAILS** 

### Value

None. SQL UPDATE statements are pushed to the database.

### See Also

```
pull, mutate-joins, select, rename, mutate, filter, distinct read_excel write_xlsx
```

# **Examples**

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

fix.generation.by.source

Alter the contents of toxval according to an excel dictionary file with field generation

# Description

Alter the contents of toxval according to an excel dictionary file with field generation

#### Usage

```
fix.generation.by.source(toxval.db, source, subsource = NULL)
```

# Arguments

toxval.db The version of toxval in which the data is altered.

source The source to be processed

subsource The subsource to be processed (NULL default)

#### Value

The database will be altered

```
fix.human_eco.by.source
```

Fix the human\_eco flag

### Description

Fix the human\_eco flag

#### Usage

```
fix.human_eco.by.source(toxval.db, source = NULL, subsource = NULL)
```

### Arguments

toxval.db The version of toxval in which the data is altered.

source The source to be fixed. If NULL, fix all sources subsource The subsource to be fixed (NULL default)

#### Value

The database will be altered

```
fix.non_ascii.v2 fix.non_ascii.v2
```

# Description

Flag and fix non-ascii characters in the database

#### Usage

```
fix.non_ascii.v2(df, source)
```

# **Arguments**

df The dataframe to be processed

source Current ToxVal source
The source to be fixed

# **Details**

**DETAILS** 

#### Value

The dataframe with non ascii characters replaced with cleaned versions

#### See Also

```
read.xlsx, write.xlsx str_trim stri_escape_unicode
```

#### **Examples**

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

fix.priority\_id.by.source

Fix the priority\_id in the toxval table based on source

#### **Description**

Fix the priority\_id in the toxval table based on source

#### Usage

```
fix.priority_id.by.source(toxval.db, source = NULL, subsource = NULL)
```

### **Arguments**

toxval.db The version of toxvaldb to use.

source The source to be fixed, If NULL, set for all sources

subsource The subsource to be fixed (NULL default)

fix.qc\_status.by.source

Fix the qa\_status flag

#### **Description**

Fix the qa\_status flag

#### Usage

```
fix.qc_status.by.source(
  toxval.db,
  source.db,
  source = NULL,
  subsource = NULL,
  reset = FALSE
)
```

# Arguments

toxval.db The version of toxval in which the data is altered.

source The source to be fixed

subsource The subsource to be fixed (NULL default)
reset If TRUE, reset all values to 'pass' before setting

sourcedb The source database name

fix.replace.unicode 27

#### Value

The database will be altered

```
fix.replace.unicode
fix.replace.unicode
```

# **Description**

A function to check all character fields and handle unicode symbols, either by removing them or replacing them with alphabetic equivalents.

### Usage

```
fix.replace.unicode(df)
```

### Arguments

df

Character vector to check/replace unicode symbols.

#### **Details**

**DETAILS** 

#### Value

Returns a modified version of the input vector with unicode replacements.

#### See Also

```
[stri_escape_unicode][stringi::stri_escape_unicode] [str_extract][stringr::str_extract]
```

# **Examples**

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

```
fix.risk_assessment_class.by.source
```

Set the risk assessment class of toxval according to an excel dictionary. Values may be set multiple times, so the excel sheet should be ordered so that the last ones to be set are last

#### **Description**

Set the risk assessment class of toxval according to an excel dictionary. Values may be et multiple times, so the excel sheet should be ordered so that the last ones to be set are last

#### Usage

```
fix.risk_assessment_class.by.source(
  toxval.db,
  source = NULL,
  subsource = NULL,
  restart = TRUE,
  report.only = FALSE
)
```

#### **Arguments**

toxval.db The version of toxval in which the data is altered.

source The source to be updated

subsource The subsource to be updated (NULL default)
restart If TRUE, delete all values and start from scratch

report.only Whether to report or write/export data. Default is FALSE (write/export data)

```
fix.single.param.by.source
```

Alter the contents of toxval according to an excel dictionary

#### **Description**

Alter the contents of toxval according to an excel dictionary

#### Usage

```
fix.single.param.by.source(
   toxval.db,
   param,
   source,
   subsource = NULL,
   ignore = FALSE,
   report.only = FALSE,
   units.data = NULL
)
```

#### **Arguments**

toxval.db The version of toxval in which the data is altered.

param The parameter value to be fixed

source The source to be fixed

subsource The subsource to be fixed (NULL default) ignore If TRUE allow missing values to be ignored

report.only Whether to report or write/export data. Default is FALSE (write/export data)
units.data A dataframe containing current units data if units are to be reported (NULL

default)

#### Value

The database will be altered

fix.species.common\_name

Fix issues with species common names

#### **Description**

Fix issues with species common names

### Usage

```
fix.species.common_name(toxval.db)
```

#### **Arguments**

toxval.db The version of toxval into which the tables are loaded.

fix.species.duplicates

Check for species duplicates - same common name but multiple species\_ids

#### **Description**

Check for species duplicates - same common name but multiple species\_ids

#### Usage

```
fix.species.duplicates(toxval.db, source = NULL, subsource = NULL)
```

#### **Arguments**

toxval.db The version of the database to use

source The source to be checked. If source=NULL, check all sources

subsource The subsource to be checked (NULL default)

30 fix.strain.v2

fix.species.v2

Set the species\_id column in toxval

#### **Description**

This function replaces fix.species This function precedes toxvaldb.load.species

#### Usage

```
fix.species.v2(
  toxval.db,
  source = NULL,
  subsource = NULL,
  date_string = "2023-05-18"
)
```

## **Arguments**

toxval.db The version of the database to use

source The source to be fixed

subsource The subsource to be fixed (NULL default)

date\_string The date version of the dictionary

fix.strain.v2

Set the strain information in toxval

#### **Description**

Set the strain information in toxval

### Usage

```
fix.strain.v2(
  toxval.db,
  source = NULL,
  subsource = NULL,
  date_string = "2024-04-08",
  reset = FALSE
)
```

#### **Arguments**

toxval.db The version of the database to use

source The source to be fixed. If NULL, fix for all sources

subsource The subsource to be fixed (NULL default)
date\_string The date of the latest dictionary version

```
fix.study_duration.params
```

Fix the study duration fields: study\_duration\_value, study\_duration\_units, study\_duration\_class based on a 3 column dictionary ~/dictionary/exposure\_route\_method\_form.xlsx

#### **Description**

Fix the study duration fields: study\_duration\_value, study\_duration\_units, study\_duration\_class based on a 3 column dictionary ~/dictionary/exposure\_route\_method\_form.xlsx

### Usage

```
fix.study_duration.params(
  toxval.db,
  source = NULL,
  subsource = NULL,
  report.only = FALSE
)
```

#### **Arguments**

toxval.db The version of toxval in which the data is altered.

source The source to be fixed. If source=NULL, fix all sources

subsource The subsource to be fixed (NULL default)

report.only Whether to report or write/export data. Default is FALSE (write/export data)

fill.toxval\_fix

If TRUE (default) read the dictionaries into the toxval\_fix table

#### Value

The database will be altered

fix.study\_group

Set the study\_group field

#### **Description**

Set the study\_group field

#### Usage

```
fix.study_group(
  toxval.db,
  source = NULL,
  subsource = NULL,
  report.only = FALSE
)
```

#### **Arguments**

toxval.db Database version

source The source to be updated

subsource The subsource to be updated (NULL default)

report.only Whether to apply study\_group fix or just report what fixes would be applied.

#### Value

for each source writes an Excel file with the name ../export/export by source data/toxval all toxval.db source.xlsx

```
fix.study_type.by.source
```

Fix the study\_type using manual curation on a source-by-source basis

#### **Description**

This function replaces the original export.for\_study\_type and fix.study\_type.manual, with the intention of making it easier to fix the study types on a source-by-source basis All of the work will happen in the directory ~/Repo/dictionary/study\_type\_by\_source. Each source will have its own file and will not have a date attached to make maintenance easier. To start the process, run this with mode="export". This will write a source-specific file to the export\_temp directory. Open either the xlsx or csv (if the xslx is corrupted) and place this file into the main directory (study\_type\_by\_source) and edit it there as documented in the main documentation. Next run this function with mode="import". This will load your changes into the database. It is suggested that before working on a new source that the old version in the study\_type\_by\_source get pushed to the old\_versions directory

#### Usage

```
fix.study_type.by.source(
  toxval.db,
  mode = "export",
  source = NULL,
  subsource = NULL,
  custom.query.filter = NULL,
  report.only = FALSE
)
```

# Arguments

toxval.db The version of toxval in which the data is altered.

mode Either export or import

source The source you want to work on. If NULL, this will run all sources

subsource The subsource to be fixed

custom.query.filter

Additional filters for the query. Example: custom.query.filter = paste0(" and b.human eco='human health' and ", "e.toxval type supercategory in ('Point of

Departure','Lethality Effect Level','Toxicity Value')")

report . only Whether to report or write/export data. Default is FALSE (write/export data)

fix.trim\_spaces 33

#### Value

The database will be altered

fix.trim\_spaces

Trim leading and trailing blanks from all character columns

#### **Description**

Trim leading and trailing blanks from all character columns

#### Usage

```
fix.trim_spaces(res)
```

#### **Arguments**

toxval.db The version of toxval in which the data is altered.

source The source to be fixed. If source=NULL, fix all sources

fill.toxval\_fix

If TRUE (default) read the dictionaries into the toxval\_fix table

#### Value

The database will be altered

fix.units.by.source

Do all of the fixes to units

#### **Description**

- 1. All of these steps operate on the toxval\_units column.
- 2. Replace variant unit names with standard ones, running fix.single.param.new.by.source.R This fixes issues like variant names for mg/kg-day and uses the dictionary file dictionary/toxval\_units\_5.xlsx
- 3. Fix special characters in toxval\_units
- 4. Fix issues with units containing extra characters for some ECOTOX records
- 5. Convert units that are multiples of standard ones (e.g. ppb to ppm). This uses the dictionary file dictionary/toxval\_units conversions 2018-09-12.xlsx
- 6. Run conversions from molar to mg units, using MW. This uses the dictionary file dictionary/MW conversions.xlsx
- 7. Convert ppm to mg/m3 for inhalation studies. This uses the conversion Concentration (mg/m3) = 0.0409 x concentration (ppm) x molecular weight. See https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/This function requires htat the DSSTox external chemical\_id be set
- 8. Convert ppm to mg/kg-day in toxval according to a species-specific conversion factor for oral exposures. This uses the dictionary file dictionary/ppm to mgkgday by animal.xlsx See: www10.plala.or.jp/biostatistics/1-3.doc This probbaly assumes feed rather than water
- 9. Make sure that eco studies are in mg/L and human health in mg/m3

34 generate.originals

#### Usage

```
fix.units.by.source(
  toxval.db,
  source = NULL,
  subsource = NULL,
  do.convert.units = FALSE,
  report.only = FALSE,
  report.extra = FALSE
)
```

#### **Arguments**

toxval.db The version of toxvaldb to use.

source Source to be fixed

subsource Subsource to be fixed (NULL default)

do.convert.units

If TRUE, so unit conversions, as opposed to just cleaning

report.only Whether to report or write/export data. Default is FALSE (write/export data)

toxval\_type, mw, species\_id, etc.)

generate.originals

Duplicate any columns with '\_original' Set Toxval Defaults

# Description

Duplicate any columns with '\_original' Set Toxval Defaults

#### Usage

```
generate.originals(toxval.db, mat)
```

#### **Arguments**

toxval.db The version of toxval from which to set defaults.

mat THe matrix of data to be altered

#### Value

The altered input matrix

getDBConn 35

getDBConn

getDBConn

### Description

Get the names the database server, user, and pass or returns error message

### Usage

```
getDBConn()
```

#### **Details**

**DETAILS** 

### Value

print the database connection information

### **Examples**

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

import.dictionary

import the toxval and toxval\_type dictionaries

# Description

import the toxval and toxval\_type dictionaries

### Usage

```
import.dictionary(toxval.db)
```

# Arguments

toxval.db

The name of the database

36 log\_message

```
import.source.info.by.source
```

Load Source Info for each source into toxval The information is in the file ~/dictionary/source\_info 2023-11-30.xlsx

#### **Description**

Load Source Info for each source into toxval The information is in the file ~/dictionary/source\_info 2023-11-30.xlsx

#### Usage

```
import.source.info.by.source(
  toxval.db,
  source = NULL,
  dict_date = "2025-05-29"
)
```

#### **Arguments**

toxval.db The version of toxval into which the source info is loaded.

source The specific source to be loaded, If NULL, load for all sources

dict\_date Date stamp of the dictionary file to update

load.dsstox

Load DSSTox if needed from a file into a global variables (DSSTOX)

#### **Description**

Load DSSTox if needed from a file into a global variables (DSSTOX)

# Usage

```
load.dsstox(reprocess = FALSE)
```

log\_message

Function to combine output log with output message

#### **Description**

Function to combine output log with output message Function to combine output log with output message

### Usage

```
log_message(log_df, message_df_col)
log_message(log_df, message_df_col)
```

mv\_orchestrate 37

## **Arguments**

mv\_orchestrate

Orchestrate Materialized View(s) Creation

## Description

Function to create a new materialized view database table by querying an input database version based on an input field\_dictionary.xlsx file.

## Usage

```
mv_orchestrate(toxval.db, include.qc.status = FALSE)
```

# Arguments

toxval.db Version of the database to store the new view. include.qc.status

Boolean whether to include the qc\_status field, or filter out "fail" records. Default is FALSE.

#### **Details**

**DETAILS** 

## Value

None. SQL statements are executed to generate a database table.

## See Also

```
\label{lem:case_when, select, mutate-joins, filter, bind\_rows character(0), MySQLDriver-class
```

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

38 pull\_jira\_info

```
printCurrentFunction printCurrentFunction
```

## Description

Print the name of the current function

## Usage

```
printCurrentFunction(comment.string = NA)
```

## **Arguments**

comment.string An optional string to be printed

## **Details**

**DETAILS** 

## Value

None

#### See Also

```
flush.console
```

## **Examples**

```
## Not run:
if(interactive()){
    #EXAMPLE1
    }
## End(Not run)
```

```
pull_jira_info
```

pull\_jira\_info

## **Description**

Script to process CSV export of Jira into a status log

## Usage

```
pull_jira_info(
    jira_project = "TOXVAL",
    in_file = NULL,
    auth_token = NULL,
    ticket_filter_list = NULL)
```

#### **Arguments**

#### **Details**

**DETAILS** 

#### Value

Summary DataFrame of Jira tickets by Epic, Label, and Status

## See Also

[download.file][utils::download.file], [unzip][utils::unzip] [read\_csv][readr::read\_csv], [cols][readr::cols] [select][dplyr::select], [contains][dplyr::contains], [mutate][dplyr::mutate], [everything][dplyr::everything], [filter][dplyr::filter], [distinct][dplyr::distinct], [left\_join][dplyr::left\_join], [group\_by][dplyr::group\_by], [summarise][dplyr::summarise], [n][dplyr::n] [unite][tidyr::unite] [str\_squish][stringr::str\_squish]

## **Examples**

```
## Not run:
if(interactive()){
  out = pull_jira_info(jira_project="project_name")
}
## End(Not run)
```

```
qa\_toxval\_url\_validation qa\_toxval\_url\_validation
```

# Description

Function to pull URLs and log their HTTP statuses

## Usage

```
qa_toxval_url_validation(
  tbl_list = c("toxval", "record_source", "source_info"),
  db,
  log_suffix
)
```

40 runInsert

#### **Arguments**

tbl\_list List of ToxVal tables to pull URLs from, Default: c("toxval", "record\_source",

"source\_info")

db ToxVal database name to pull URLs from

log\_suffix SUffix to add to end of log file to uniquely identify file, Default: Date stamp

from Sys.Date()

#### **Details**

**DETAILS** 

#### Value

None. Log file is generated

## See Also

read\_excel filter, mutate, reexports, bind pivot\_longer keep GET, status\_code write\_xlsx

## **Examples**

```
## Not run:
if(interactive()){
   qa_toxval_url_validation(tbl_list = c("toxval", "record_source", "source_info"), db="res_toxval_v94", log_su
}
```

runInsert

## End(Not run)

runInsert

#### **Description**

Insert a record into a database. if auto.increment=TRUE, return the auto incremented primary key of the record. otherwise, return -1

## Usage

```
runInsert(query, db, do.halt = F, verbose = F, auto.increment.id = F)
```

## Arguments

query a properly formatted SQL query as a string

db the name of the database

do.halt if TRUE, halt on errors or warnings verbose if TRUE, print diagnostic information

auto.increment.id

PARAM\_DESCRIPTION, Default: F

auto. increment if TRUE, add the auto increment primary key even if not part of the query

runInsertTable 41

#### **Details**

**DETAILS** 

#### Value

Returns the database table auto incremented primary key ID

## See Also

```
character(0), MySQLDriver-class
```

## **Examples**

```
## Not run:
if(interactive()){
  #EXAMPLE1
}
## End(Not run)
```

runInsertTable

runInsertTable

## **Description**

Inserts multiple rows into a database table

## Usage

```
runInsertTable(mat, table, db, do.halt = TRUE, verbose = FALSE, get.id = TRUE)
```

# Arguments

mat	data frame containing the data, with the column names corresponding
table	name of the database table to which data will be inserted
db	the name of the database
do.halt	if TRUE, halt on errors or warnings
verbose	if TRUE, print diagnostic information
get.id	Whether to return ID or not, Default: T

## **Details**

**DETAILS** 

## Value

ID or None

## See Also

```
character(0), MySQLDriver-class
```

runQuery

## **Examples**

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

runQuery

runQuery

## Description

Runs a database query and returns a result set

## Usage

```
runQuery(query = NULL, db, do.halt = TRUE, verbose = FALSE)
```

## **Arguments**

```
query a properly formatted SQL query as a string
```

db the name of the database

do.halt if TRUE, halt on errors or warnings verbose if TRUE, print diagnostic information

## **Details**

**DETAILS** 

#### Value

Query results

## See Also

```
character(0), MySQLDriver-class flush.console
```

```
## Not run:
if(interactive()){
    #EXAMPLE1
    }
## End(Not run)
```

runStatement 43

runStatement runStatement

## Description

Run a SQL statement, such as an ALTER or UPDATE

## Usage

```
runStatement(query, db, do.halt = FALSE, verbose = FALSE)
```

## **Arguments**

query a properly formatted SQL query as a string

db the name of the database

do.halt if TRUE, halt on errors or warnings

verbose if TRUE, print diagnostic information

## **Details**

**DETAILS** 

## Value

None. SQL statement is run.

## See Also

```
character(0), MySQLDriver-class
```

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

44 runUpdate

runUpdate

runUpdate

## **Description**

Runs a database query and returns a result set

## Usage

```
runUpdate(
  table,
  updateQuery = NULL,
  updated_df = NULL,
  db,
  do.halt = TRUE,
  verbose = FALSE,
  trigger_check = TRUE
)
```

## **Arguments**

table table to update

updateQuery a properly formatted SQL query as a string in the form of an UPDATE INNER

JOIN

updated\_df a dataframe of updated data to temporarily write to database for INNER JOIN

db the name of the database

do.halt if TRUE, halt on errors or warnings verbose if TRUE, print diagnostic information

trigger\_check if FALSE, audit triggers are ignored/bypassed

## **Details**

**DETAILS** 

## Value

None

## See Also

character(0), MySQLDriver-class dbSendStatement

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

```
set.critical_effect_category
```

Sets the final category for each term/study\_type pair in the critical\_effect\_terms table

## Description

Sets the final category for each term/study\_type pair in the critical\_effect\_terms table

# Usage

```
set.critical_effect_category(toxval.db)
```

## **Arguments**

toxval.db The version of toxval into which the tables are loaded.

#### Value

None. SQL update statement is performed

```
set.experimental_record.by.source
```

Sets experimental\_record flag by source for records in toxval

# Description

Sets experimental\_record flag by source for records in toxval

#### Usage

```
set.experimental_record.by.source(toxval.db, source = NULL)
```

# Arguments

toxval.db The version of toxval into which the tables are loaded.

source Name of source to set. Default NULL means set experimental record for all

sources

## Value

None. SQL update statement is performed

## **Description**

Set toxval qc\_status to source table qc\_status

## Usage

```
set.initial.qc_status(toxval.db, source.db, source, subsource = NULL)
```

## **Arguments**

toxval.db The database version to use source.db The source database name source The source name

subsource The subsource to update, if desired (Default: NULL)

set.qc.category.by.source

Function for assigning QC Categories to sources in toxval via the qc\_category field

## **Description**

Function for assigning QC Categories to sources in toxval via the qc\_category field

## Usage

```
set.qc.category.by.source(
  toxval.db,
  source.db,
  source = NULL,
  confluence_url = "https://confluence.epa.gov/x/VuCkFg",
  confluence_access_token,
  jira_access_token,
  jira_rdata = "qc_category"
)
```

## **Arguments**

toxval.db The version of toxval into which the tables are loaded.

source.db The source database to use.

source The source to set a qc\_category for

confluence\_url URL to QC tracking Confluence page

confluence\_access\_token

A personal access token for authentication in Confluence

jira\_access\_token

A personal access token for authentication in Jira

jira\_rdata Local RData file of Jira data to use for jira\_tickets object

```
set.study_type.by.study_group
Normalize study_type within study_group
```

#### **Description**

Normalize study\_type within study\_group

## Usage

```
set.study_type.by.study_group(
  toxval.db,
  source = NULL,
  subsource = NULL,
  report.only = TRUE,
  filter.matching = FALSE
)
```

## **Arguments**

toxval.db The version of toxvaldb to use.

source Source to check

subsource Subsource to check (NULL default)

report.only Whether to alter ToxVal (FALSE) or simply record suggestions (TRUE), default

TRUE

filter.matching

Whether to ignore entries whose current study\_type matches suggestion, default

**FALSE** 

```
set.supersource.export.names
```

Populate export\_source\_name and supersource fields in ToxVal

## **Description**

Populate export\_source\_name and supersource fields in ToxVal

## Usage

```
set.supersource.export.names(
  toxval.db,
  source = NULL,
  version_date = "2025-05-29"
)
```

#### **Arguments**

toxval.db The version of toxval from which to set defaults.

source The source to be fixed (if NULL then edit all sources)
version\_date The date of the source\_info dictionary to be used

```
set_extraction_doc_clowder_id
```

Inserts clowder document information into record\_source table

## **Description**

Inserts clowder document information into record\_source table

## Usage

```
set_extraction_doc_clowder_id(toxval.db, source.db, source = NULL)
```

## **Arguments**

toxval.db The version of toxval into which the tables are loaded.

source.db The source database to use.

source Name of source to set. Default NULL means set Clowder ID for all sources

#### Value

None. SQL insert statement is performed

```
set_toxval_relationship_by_toxval_type
```

Generic function for setting record relationships based on standardized rules

## **Description**

Generic function for setting record relationships based on standardized rules

## Usage

```
set_toxval_relationship_by_toxval_type(res, toxval.db)
```

# Arguments

res The data that has relationships to be represented

toxval.db The version of toxval into which the tables are loaded.

```
source_chemical.chemidplus
```

special process to deal with source chemicals for ChemIDPlus

## **Description**

special process to deal with source chemicals for ChemIDPlus

## Usage

```
source_chemical.chemidplus(
  toxval.db,
  source.db,
  res,
  source,
  chem.check.halt = FALSE,
  casrn.col = "casrn",
  name.col = "name",
  verbose = F
```

## **Arguments**

toxval.db The version of toxval into which the source info is loaded.

source.db The source database version

source The xource to be processed (ECOTOX)

chem.check.halt

If TRUE, halt if there are errors in the chemical checking

casrn.col Name of the column containing the CASRN

name . col Name of the column containing chemical names

verbose If TRUE, output extra diagnostics information

```
source_chemical.ecotox
```

special process to deal with source chemicals for ECOTOX

## **Description**

special process to deal with source chemicals for ECOTOX

50 source\_chemical.extra

#### Usage

```
source_chemical.ecotox(
  toxval.db,
  source.db,
  res,
  source,
  chem.check.halt = FALSE,
  casrn.col = "casrn",
  name.col = "name",
  verbose = F
```

## **Arguments**

```
toxval.db The version of toxval into which the source info is loaded.

source.db The source database version

source The xource to be processed (ECOTOX)

chem.check.halt

If TRUE, halt if there are errors in the chemical checking

casrn.col Name of the column containing the CASRN

name.col Name of the column containing chemical names

verbose If TRUE, output extra diagnostics information
```

source\_chemical.extra special process to deal with source chemicals for extra source (cancer, genetox, skin\_eye, etc)

## **Description**

special process to deal with source chemicals for extra source (cancer, genetox, skin\_eye, etc)

## Usage

```
source_chemical.extra(
  toxval.db,
  source.db,
  res,
  source,
  chem.check.halt = FALSE,
  casrn.col = "casrn",
  name.col = "name",
  verbose = FALSE
)
```

#### **Arguments**

toxval.db	The version of toxval into which the source info is loaded.
source.db	The source database version
source	The source to be processed #' @param chem.check.halt If TRUE, halt if there are errors in the chemical checking
casrn.col	Name of the column containing the CASRN
name.col	Name of the column containing chemical names
verbose	If TRUE, output extra diagnostics information

```
source_chemical.toxrefdb
```

Special process to deal with source chemicals for ToxRefDB. This will put the chemicals into the source database source\_chemical table

## **Description**

Special process to deal with source chemicals for ToxRefDB. This will put the chemicals into the source database source\_chemical table

## Usage

```
source_chemical.toxrefdb(
  toxval.db,
  source.db,
  res,
  source = "ToxRefDB",
  chem.check.halt = FALSE,
  casrn.col = "casrn",
  name.col = "name",
  verbose = FALSE
)
```

## **Arguments**

toxval.db The version of toxval into which the source info is loaded. source.db The source database version

res The dataframe to which the chemical\_id sill be added

source The name of the source

chem.check.halt

If TRUE, stop if there are problems with the chemical mapping

casrn.col The name of the column containing the CASRN

name.col The name of hte column containing hte chemical name

verbose If TRUE, write out diagnostic messages

#### Value

Returns the input dataframe with the chemical\_id added

52 species.qc

```
source\_hash\_vectorized\\ source\_hash\_vectorized
```

## **Description**

Generate the hash key for a source table based on hashing columns

## Usage

```
source_hash_vectorized(res, hashing_cols)
```

#### **Arguments**

res The data frame to be processed

 $has \verb|hing_cols| & Optional list of columns to use for generating source\_hash \\$ 

#### **Details**

**DETAILS** 

## Value

Input dataframe with new source\_hash field

## See Also

```
digest distinct
```

## **Examples**

```
## Not run:
if(interactive()){
    #EXAMPLE1
    }
## End(Not run)
```

species.qc

Run some checks on the species information

## Description

Run some checks on the species information

## Usage

```
species.qc(toxval.db)
```

## **Arguments**

toxval.db The version of toxval into which the tables are loaded.

species.strain.mismap 53

```
species.strain.mismap Find species and strain mismaps
```

## Description

Find species and strain mismaps

## Usage

```
species.strain.mismap(toxval.db)
```

# Arguments

toxval.db

Database version

#### Value

Write a file with the results

toxval.config

toxval.config

# Description

Define a set of global variables. These include the source path (datapath) and the source databases (e.g. dev\_toxval\_version and dev\_toxval\_source\_version).

# Usage

```
toxval.config()
```

## **Details**

**DETAILS** 

#### Value

Returns a set of parameters to be used throughout the package

```
## Not run:
if(interactive()){
  #EXAMPLE1
  }
## End(Not run)
```

54 toxval.load.alaska\_dec

toxval.init.db	Initialize the database.	THis sill load the species,	info and dictionary
	tables		

## Description

Initialize the database. THis sill load the species, info and dictionary tables

## Usage

```
toxval.init.db(toxval.db, version_info, reset = F, date_string = "2022-05-25")
```

## Arguments

toxval.db The version of toxval into which the tables are loaded.

version\_info Info string describing the version.

reset If TRUE, delete all content from the database

date\_string The date of the dictionary versions

toxval.load.alaska\_dec

Load the alaska\_dec (old ACToR - flex)data from toxval sourcedb to toxval

## Description

 $Load\ the\ alaska\_dec\ (old\ ACToR\ -\ flex) data\ from\ toxval\ sourcedb\ to\ toxval$ 

# Usage

```
toxval.load.alaska_dec(toxval.db, source.db, log = F)
```

## **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, output log inoformation to a file

toxval.load.all 55

toxval.load.all	Load and process all information into ToxValDB. The entire process can be run with one command: toxval.load.all(toxval.db=,source.db=, do.all=TRUE) It can also be run in stages, but needs to be run in the order of the do.X parameters listed here. If any earlier step is run, all of the subsequent steps need
	to be rerun.

## Description

Load and process all information into ToxValDB. The entire process can be run with one command: toxval.load.all(toxval.db=...,source.db=..., do.all=TRUE) It can also be run in stages, but needs to be run in the order of the do.X parameters listed here. If any earlier step is run, all of the subsequent steps need to be rerun.

## Usage

```
toxval.load.all(
  toxval.db,
  source.db,
  confluence_access_token,
  jira_access_token,
  log = FALSE,
  do.init = FALSE,
  do.reset = FALSE,
  do.load = FALSE,
  do.post = FALSE,
  do.extra = FALSE
)
```

## **Arguments**

toxval.db	The version of toxval into which the tables are loaded.		
source.db	The version of toxval_source database from which information is pulled.		
confluence_access_token			
	A personal access token for authentication in Confluence		
jira_access_token			
	A personal access token for authentication in Jira		
log	If TRUE write the output from each load script to a log file		
do.init	If True, clean out all of the database tables		
do.reset	If TRUE, empty the database to restart		
do.load	If TRUE, load all of the source		
do.post	If TRUE, do th post-processingwork of fixing study type and risk_assessment_class		
do.extra	If TRUE, load the non-toxval data (genetox, bcfbaf, skin/eye)		

# Value

Nothing is returned

56 toxval.load.atsdr\_mrls

```
toxval.load.atsdr.pfas.2021
```

Load data ATSDR PFAS 2021 data from toxval\_source to toxval

## **Description**

Load data ATSDR PFAS 2021 data from toxval\_source to toxval

## Usage

```
toxval.load.atsdr.pfas.2021(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### **Arguments**

```
toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove_null_dtxsid
```

If TRUE, delete source records without curated DTXSID value

```
toxval.load.atsdr_mrls
```

Load the ATSDR MRLs data from toxval\_source to toxval

# Description

Load the ATSDR MRLs data from toxval\_source to toxval

## Usage

```
toxval.load.atsdr_mrls(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## Arguments

```
toxval.db The version of toxval into which the tables are loaded.

source.db The source database to use.

log If TRUE, send output to a log file
remove_null_dtxsid

If TRUE, delete source records without curated DTXSID value
```

toxval.load.au\_dwg 57

toxval.load.au\_dwg

Loading MN MDH HHBW to toxval from toxval\_source

## **Description**

Loading AU DWG to toxval from toxval\_source

## Usage

```
toxval.load.au_dwg(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.caloehha Load new\_caloehha from toxval\_source to toxval

## **Description**

Load new\_caloehha from toxval\_source to toxval

## Usage

```
toxval.load.caloehha(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

toxval.db The version of toxval into which the tables are loaded.
source.db The source database to use.
log If TRUE, send output to a log file

remove\_null\_dtxsid

58 toxval.load.cancer

```
toxval.load.caloehha_rel_derivations
```

Loading CAL OEHHA REL Derivations to toxval from toxval\_source

#### **Description**

Loading CAL OEHHA REL Derivations to toxval from toxval\_source

## Usage

```
toxval.load.caloehha_rel_derivations(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.cancer

prepare the cancer call data. The data comes form a series of files ../NIOSH/NIOSH\_CARC\_2018.xlsx ../IRIS/iris\_cancer\_call\_2018-10-03.xlsx ../PPRTV\_ORNL/PPRTV\_ORNL cancer calls 2018-10-25.xlsx ../cancer\_summary/cancer/NTP/NTP cancer clean.xlsx ../cancer\_summary/cancer/IARC/IARC cancer 2018-10-29.xlsx ../cancer\_summary/cancer/HealthCanada/HealthCanada\_TRVs\_2010\_AppendixA v2.xlsx ../cancer\_summary/cancer/EPA\_OPP\_CARC/EPA\_CARC.xlsx ../cancer\_summary/cancer/CalEPA/calepa\_p65\_cancer\_only.xlsx

## **Description**

extract all of the chemicals with cancer slope factor or unit risk with appropriate units

## Usage

```
toxval.load.cancer(toxval.db, source.db)
```

#### Arguments

toxval.db The version of the database to use

```
toxval.load.chemidplus
```

Load ChemID Plus Acute data to toxval

#### **Description**

Load ChemID Plus Acute data to toxval

#### Usage

```
toxval.load.chemidplus(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE,
  do.init = FALSE
)
```

## **Arguments**

toxval.load.copper

Load Copper Manufacturers data to toxval from toxval\_source

## **Description**

Load Copper Manufacturers data to toxval from toxval\_source

## Usage

```
toxval.load.copper(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

# Arguments

```
toxval.db The database version to use
source.db The source database
log If TRUE, send output to a log file
remove_null_dtxsid
If TRUE, delete source records without curated DTXSID value
```

60 toxval.load.dedup

toxval.load.dedup toxval.load.dedup

## **Description**

Perform deduping on data before it is loaded to toxval

## Usage

```
toxval.load.dedup(
  res,
  dedup_fields = NULL,
  hashing_cols = toxval.config()$hashing_cols,
  delim = " |::| "
)
```

# Arguments

res dataframe containing the source data to dedup

dedup\_fields vector containing field names to dedup, Default: NULL (all fields but hashing cols)

hashing\_cols vector containing field names of hashing columns, Default: toxval.config()\$hashing\_cols

delim string used to separate collapsed values, Default: ' |::| '

## Details

**DETAILS** 

## Value

dataframe containing deduped source data

## See Also

```
select, group_by, summarise, context, filter, mutate, across, reexports, na_if, distinct
```

```
## Not run:
if(interactive()){
    #EXAMPLE1
    }
## End(Not run)
```

toxval.load.dod 61

toxval.load.dod

Load the DOD data from toxval\_source to toxval

## **Description**

Load the DOD data from toxval\_source to toxval

## Usage

```
toxval.load.dod(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

## **Arguments**

toxval.db The version of toxval into which the tables are loaded.

source.db The source database to use.

log If TRUE, send output to a log file

toxval.load.doe.benchmarks

Load DOE Wildlife Benchmarks data from toxval\_source to toxval

## **Description**

Load DOE Wildlife Benchmarks data from toxval\_source to toxval

## Usage

```
toxval.load.doe.benchmarks(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

toxval.load.doe.pac

Load DOE Protective Action Criteria data from toxval\_source to toxval

# Description

Load DOE Protective Action Criteria data from toxval\_source to toxval

## Usage

```
toxval.load.doe.pac(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## Arguments

```
toxval.db The version of toxval into which the tables are loaded.

source.db The source database to use.

log If TRUE, send output to a log file
remove_null_dtxsid
```

If TRUE, delete source records without curated DTXSID value

```
toxval.load.echa_iuclid
```

Loading the ECHA IUCLID data to toxval from toxval\_source This method is different from most because there are multiple tables (one per study type) for this source

## Description

Loading the ECHA IUCLID data to toxval from toxval\_source This method is different from most because there are multiple tables (one per study type) for this source

# Usage

```
toxval.load.echa_iuclid(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

```
toxval.load.echa_rac_oel
```

Loading ECHA RAC OEL to toxval from toxval\_source

## **Description**

Loading ECHA RAC OEL to toxval from toxval\_source

## Usage

```
toxval.load.echa_rac_oel(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## Arguments

toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.ecotox

Load ECOTOX from the datahub to toxval

# Description

Load ECOTOX from the datahub to toxval

## Usage

```
toxval.load.ecotox(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE,
  sys.date = "2024-09-19"
)
```

64 toxval.load.epa\_aegl

#### **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

sys.date The version of the data to be used

toxval.load.efsa

Load EFSA data from toxval source to toxval

## **Description**

Load EFSA data from toxval\_source to toxval

#### Usage

```
toxval.load.efsa(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

#### **Arguments**

toxval.db The version of toxval into which the tables are loaded.

source.db The source database to use.

log If TRUE, send output to a log file

toxval.load.epa\_aegl Load the EPA AEGL data from toxval\_source to toxval

#### **Description**

Load the EPA AEGL data from toxval\_source to toxval

## Usage

```
toxval.load.epa_aegl(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

toxval.load.epa\_dcap 65

## **Description**

Load EPA DCAP source from toxval\_source to toxval

## Usage

```
toxval.load.epa_dcap(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

toxval.load.epa\_ecel Generic structure for loading to toxval from toxval\_source

## **Description**

Generic structure for loading to toxval from toxval\_source

## Usage

```
toxval.load.epa_ecel(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## Arguments

```
toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove_null_dtxsid
```

toxval.load.epa\_hawc

## **Description**

Load EPA ETAP source from toxval\_source to toxval

## Usage

66

```
toxval.load.epa_etap(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

## **Description**

Loading EPA HAWC to toxval from toxval\_source

## Usage

```
toxval.load.epa_hawc(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## Arguments

```
toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove_null_dtxsid
```

toxval.load.epa\_hhtv 67

## **Description**

Load EPA HHTV data to toxval from toxval\_source

## Usage

```
toxval.load.epa_hhtv(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

toxval.load.epa\_hwir Load EPA HWIR source from toxval\_source to toxval

## **Description**

Load EPA HWIR source from toxval\_source to toxval

## Usage

```
toxval.load.epa_hwir(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

```
toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove_null_dtxsid
```

toxval.load.epa\_ncel Generic structure for loading to toxval from toxval\_source

## **Description**

Generic structure for loading to toxval from toxval\_source

#### Usage

```
toxval.load.epa_ncel(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

```
toxval.db The database version to use
source.db The source database
log If TRUE, send output to a log file
remove_null_dtxsid
If TRUE, delete source records without curated DTXSID value
```

```
toxval.load.epa_ow_npdwr
```

Loading EPA OW NPDWR to toxval from toxval\_source

#### **Description**

Loading EPA OW NPDWR to toxval from toxval\_source

#### Usage

```
toxval.load.epa_ow_npdwr(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

```
toxval.load.epa_ow_nrwqc_hhc
```

Loading EPA OW NRWQC-HHC to toxval from toxval\_source

## **Description**

Loading EPA OW NRWQC-HHC to toxval from toxval\_source

## Usage

```
toxval.load.epa_ow_nrwqc_hhc(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

```
toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove_null_dtxsid
```

If TRUE, delete source records without curated DTXSID value

```
toxval.load.epa_tsca_8e
```

Loading EPA TSCA 8e to toxval from toxval\_source

# Description

Loading EPA TSCA 8e to toxval from toxval\_source

## Usage

```
toxval.load.epa_tsca_8e(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE)
```

# Arguments

```
toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove_null_dtxsid
```

70 toxval.load.generic

```
toxval.load.eu_scoel Loading EU SCOEL to toxval from toxval_source
```

## **Description**

Loading EU SCOEL to toxval from toxval\_source

## Usage

```
toxval.load.eu_scoel(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

toxval.load.generic Generic structure for loading to toxval from toxval\_source

## **Description**

Generic structure for loading to toxval from toxval\_source

## Usage

```
toxval.load.generic(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## Arguments

```
toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove_null_dtxsid
```

toxval.load.genetox.all 71

```
toxval.load.genetox.all
```

Load the Genetox data from Grace

## **Description**

Load the Genetox data from Grace

## Usage

```
toxval.load.genetox.all(
  toxval.db,
  source.db,
  sys.date = "2024-04-01",
  verbose = FALSE
)
```

## Arguments

```
toxval.db The database to use.
source.db The source database to use.
sys.date The input file version
verbose If TRUE output debug information
```

```
toxval.load.gestis.dnel
```

Load GESTIS DNEL data from toxval\_source to toxval

# Description

Load GESTIS DNEL data from toxval\_source to toxval

## Usage

```
toxval.load.gestis.dnel(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## **Arguments**

toxval.load.hawc

Load HAWC from toxval\_source to toxval

## **Description**

Load HAWC from toxval\_source to toxval

## Usage

```
toxval.load.hawc(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

## **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

```
toxval.load.hawc_pfas_150
```

Load HAWC PFAS 150 from toxval\_source to toxval

## **Description**

Load HAWC PFAS 150 from toxval\_source to toxval

## Usage

```
toxval.load.hawc_pfas_150(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

## Arguments

toxval.db The version of toxval into which the tables are loaded.

source.db The version of toxval\_source from which the tables are loaded.

log If TRUE, send output to a log file

remove\_null\_dtxsid

```
toxval.load.hawc_pfas_430
```

Load HAWC PFAS 430 from toxval\_source to toxval

#### **Description**

Load HAWC PFAS 430 from toxval\_source to toxval

#### Usage

```
toxval.load.hawc_pfas_430(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### Arguments

toxval.db The version of toxval into which the tables are loaded.

source.db The version of toxval\_source from which the tables are loaded.

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.healthcanada

Load Health Canada data from toxval\_source to toxval

# Description

Generic structure for laoding to toxval from toxval\_source

# Usage

```
toxval.load.healthcanada(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

# Arguments

```
toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove_null_dtxsid
```

74 toxval.load.hess

toxval.load.heast

 $Load\ the\ HEAST\ data\ from\ toxval\_source\ to\ toxval$ 

# Description

Load the HEAST data from toxval\_source to toxval

#### Usage

```
toxval.load.heast(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

# Arguments

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.hess

Load HESS data to ToxVal

#### **Description**

Load HESS data to ToxVal

# Usage

```
toxval.load.hess(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

#### **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

toxval.load.hpvis 75

toxval.load.hpvis L

Load HPVIS from toxval\_source to toxval

#### Description

Load HPVIS from toxval\_source to toxval

# Usage

```
toxval.load.hpvis(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

# Arguments

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.il\_epa

 $Load\ IL\ EPA\ source\ from\ toxval\_source\ to\ toxval$ 

# Description

Load IL EPA source from toxval\_source to toxval

# Usage

```
toxval.load.il_epa(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

76 toxval.load.iris

toxval.load.initial Delete the contents of the toxval database

# Description

Delete the contents of the toxval database

# Usage

```
toxval.load.initial(toxval.db)
```

#### **Arguments**

toxval.db The version of toxval from which the data is deleted.

toxval.load.iris Load IRIS source from toxval\_source to toxval

#### **Description**

Load IRIS source from toxval\_source to toxval

#### Usage

```
toxval.load.iris(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

# Arguments

toxval.db The version of toxval into which the tables are loaded.

source.db The source database to use.

log If TRUE, send output to a log file

remove\_null\_dtxsid

toxval.load.mass\_mmcl

 ${\it toxval.load.mass\_mmcl} \begin{tabular}{ll} Load\ the\ Mass.\ Drinking\ Water\ Standards\ data\ from\ toxval\_source\ to\ toxval \end{tabular}$ 

#### **Description**

Load the Mass. Drinking Water Standards data from toxval\_source to toxval

# Usage

```
toxval.load.mass_mmcl(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### **Arguments**

toxval.load.mass\_orsg Generic structure for loading to toxval from toxval\_source

#### **Description**

Generic structure for loading to toxval from toxval\_source

#### Usage

```
toxval.load.mass_orsg(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

# Arguments

```
toxval.db The database version to use
source.db The source database
log If TRUE, send output to a log file
remove_null_dtxsid
If TRUE, delete source records without curated DTXSID value
```

78 toxval.load.niosh

```
toxval.load.mn_mdh_hhbw
```

Loading MN MDH HHBW source to toxval from toxval\_source

# Description

Loading MN MDH HHBW source to toxval from toxval\_source

#### Usage

```
toxval.load.mn_mdh_hhbw(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.niosh

Load NIOSH from toxval\_source to toxval

#### **Description**

Load NIOSH from toxval\_source to toxval

#### Usage

```
toxval.load.niosh(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

# Arguments

```
toxval.db The database version to use
```

source.db The source database

log If TRUE, send output to a log file

 $remove\_null\_dtxsid$ 

toxval.load.niosh\_idlh 79

```
toxval.load.niosh_idlh
```

Loading NIOSH IDLH to toxval from toxval\_source

# Description

Loading NIOSH IDLH to toxval from toxval\_source

# Usage

```
toxval.load.niosh_idlh(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

# Arguments

```
toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove_null_dtxsid
```

If TRUE, delete source records without curated DTXSID value

toxval.load.nj\_dep

Loading NJ DEP to toxval from toxval\_source

#### **Description**

Loading NJ DEP to toxval from toxval\_source

#### Usage

```
toxval.load.nj_dep(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### **Arguments**

80 toxval.load.opp

# Description

Load NTP PFAS data from toxval\_source to toxval Generic structure for laoding to toxval from toxval\_source

#### Usage

```
toxval.load.ntp.pfas(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

# Arguments

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.opp

Load EPA OPP data to toxval from toxval\_source

# Description

Load EPA OPP data to toxval from toxval\_source

#### Usage

```
toxval.load.opp(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

# Arguments

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

```
toxval.load.osha_air_limits Load\ the\ osha\_air\_limits\ (old\ ACToR\ -\ flex) data\ from\ toxval\ sourcedb to\ toxval
```

# Description

Load the osha\_air\_limits (old ACToR - flex)data from toxval sourcedb to toxval

#### Usage

```
toxval.load.osha_air_limits(toxval.db, source.db, log = F)
```

#### **Arguments**

toxval.db The database version to use source.db The source database

log If TRUE, send output to a log file

#### **Description**

Load the ow\_dwsha data from toxval\_source to toxval

#### Usage

```
toxval.load.ow_dwsha(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### **Arguments**

toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove\_null\_dtxsid

toxval.load.penn

Load Penn data from toxval\_source to toxval

#### **Description**

Load Penn data from toxval\_source to toxval

#### Usage

```
toxval.load.penn(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

#### **Arguments**

toxval.db The version of toxval into which the tables are loaded.

source.db The source database to use.

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

```
toxval.load.penn_dep_mscs
```

Load the penn\_dep\_mscs data from toxval\_source to toxval

#### **Description**

Load the penn\_dep\_mscs data from toxval\_source to toxval

#### Usage

```
toxval.load.penn_dep_mscs(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### Arguments

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

```
toxval.load.pfas\_150\_sem\_v2\\ Load\ pfas\_150\_sem\ from\ toxval\_source\ to\ toxval
```

# **Description**

Load pfas\_150\_sem from toxval\_source to toxval

# Usage

```
toxval.load.pfas_150_sem_v2(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### **Arguments**

```
toxval.load.postprocess

Do all of the post-processing steps for a source
```

# Description

Do all of the post-processing steps for a source

# Usage

```
toxval.load.postprocess(
  toxval.db,
  source.db,
  source,
  do.convert.units = FALSE,
  chem_source = NULL,
  subsource = NULL,
  remove_null_dtxsid = TRUE
)
```

#### **Arguments**

toxval.db The database version to use source.db The source database name source The source name

do.convert.units

If TRUE, convert units, mainly from ppm to mg/kg-day. This code is not de-

bugged

subsource The specific subsource to process, if desired (Default: NULL)

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.pprtv.cphea

Load PPRTV CPHEA from toxval\_source to toxval

# Description

Load PPRTV CPHEA from toxval\_source to toxval

# Usage

```
toxval.load.pprtv.cphea(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

# Arguments

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

toxval.load.rsl 85

toxval.load.rsl Load the RSL data from source db to toxval - the source database needs to be updated periodically

# Description

Load the RSL data from source db to toxval - the source database needs to be updated periodically

# Usage

```
toxval.load.rsl(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

#### **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.skin.eye Load the Skin eye data

# Description

Load the Skin eye data

# Usage

```
toxval.load.skin.eye(toxval.db, source.db, verbose = FALSE)
```

#### **Arguments**

toxval.db Database version

verbose if TRUE, print diagnostic messages along the way

86 toxval.load.species

```
{\tt toxval.load.source\_chemical}
```

Perform the DSSTox mapping

# Description

Perform the DSSTox mapping

# Usage

```
toxval.load.source_chemical(
  toxval.db,
  source.db,
  source = NULL,
  verbose = TRUE,
  remove_null_dtxsid = TRUE
)
```

# Arguments

toxval.db The version of toxvaldb to use.

source.db The source database version

source The source to update for

verbose If TRUE, print out extra diagnostic messages

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

toxval.load.species Load the species table

#### **Description**

Load the species table

# Usage

```
toxval.load.species(toxval.db, date_string = "2023-05-18")
```

#### **Arguments**

toxval.db The version of toxval into which the tables are loaded.

date\_string The date string for the dictionary files

toxval.load.test 87

toxval.load.test

Load TEST data from toxval\_source to toxval

#### **Description**

Load TEST data from toxval\_source to toxval

#### Usage

```
toxval.load.test(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

#### **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

```
toxval.load.toxrefdb2.1
```

Load ToxRefdb data to toxval

# Description

Load ToxRefdb data to toxval

# Usage

```
toxval.load.toxrefdb2.1(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### Arguments

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

 $remove\_null\_dtxsid$ 

88 toxval.load.usgs\_hbsl

```
toxval.load.tx_tceq Loading TX TCEQ to toxval from toxval_source
```

#### **Description**

Loading TX TCEQ to toxval from toxval\_source

#### Usage

```
toxval.load.tx_tceq(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

# Arguments

# **Description**

Load the usgs\_hbsl (old ACToR - flex)data from toxval source db to toxval

# Usage

```
toxval.load.usgs_hbsl(toxval.db, source.db, log = F)
```

#### **Arguments**

toxval.db The database version to use source.db The source database

log If TRUE, send output to a log file

toxval.load.ut\_hb

toxval.load.ut\_hb

Load the uterotophic and Hershberger data

#### **Description**

Load the uterotophic and Hershberger data

#### Usage

```
toxval.load.ut_hb(toxval.db, source.db, log = FALSE, remove_null_dtxsid = TRUE)
```

# **Arguments**

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

remove\_null\_dtxsid

If TRUE, delete source records without curated DTXSID value

```
toxval.load.vt_vdh_dwg
```

 $Loading\ VT\ VDH\ to\ toxval\ from\ toxval\_source$ 

# Description

Loading VT VDH to toxval from toxval\_source

#### Usage

```
toxval.load.vt_vdh_dwg(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
```

# Arguments

toxval.db The database version to use

source.db The source database

log If TRUE, send output to a log file

 $remove\_null\_dtxsid$ 

90 toxval.load.who\_ipcs

```
toxval.load.who_dwg Loading WHO DWG to toxval from toxval_source
```

#### **Description**

Loading WHO DWG to toxval from toxval\_source

# Usage

```
toxval.load.who_dwg(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

# **Arguments**

#### **Description**

Load the who\_ipcs data from toxval source db to toxval

#### Usage

```
toxval.load.who_ipcs(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

# Arguments

```
toxval.db The database version to use source.db The source database log If TRUE, send output to a log file remove_null_dtxsid
```

```
toxval.load.who_jecfa_adi
```

Load WHO JECFA ADI from toxval\_source to toxval

#### **Description**

Load WHO JECFA ADI from toxval\_source to toxval

#### Usage

```
toxval.load.who_jecfa_adi(
  toxvaldb,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

#### **Arguments**

```
toxval.load.who_jecfa_tox_studies
```

Load WHO JECFA Tox Studies from toxval\_source to toxval

# Description

Load WHO JECFA Tox Studies from toxval\_source to toxval

# Usage

```
toxval.load.who_jecfa_tox_studies(
  toxval.db,
  source.db,
  log = FALSE,
  remove_null_dtxsid = TRUE
)
```

# Arguments

92 toxval.summary.stats

toxval.set.mw

Set the molecular weight in the toxval table, for use in unit conversions

# Description

Set the molecular weight in the toxval table, for use in unit conversions

#### Usage

```
toxval.set.mw(toxval.db, source = NULL, subsource = NULL)
```

# Arguments

toxval.db The database version to use

source The source subsource The subsource

toxval.summary.stats Generate summary statistics on the toxval database

# Description

Generate summary statistics on the toxval database

# Usage

```
toxval.summary.stats(toxval.db, export = FALSE, summ_level = "source")
```

# Arguments

toxval.db The version of toxval into which the tables are loaded.

export Boolean whether to export a file. Default FALSE.

summ\_level String of "source" or "supersource" how to group the summary

# Value

DataFrame of record qc\_status summary by source.

toxvaldb.view 93

4	
toxvaldb	.view

Produce a view of the ToxValDB Data

#### **Description**

'toxvaldb.view' Produces a view for ToxValDB by merging specified tables

#### Usage

```
toxvaldb.view(toxval.db, user, password, count = 10)
```

#### **Arguments**

toxval.db Database version

user The username for the MySQL database. The database instance is hard-coded in

the function setDBConn().

password The user's MySQL database password.

count If count>0, only select this number of records from each source, used for debug-

ging

#### Value

Write a file with the results: data/view/ToxValDB View toxval.db Sys.Date().xlsx

```
toxvaldb\_release\_comparison\_stats. \\ toxvaldb\_release\_comparison\_stats. \\ R
```

#### **Description**

Pull comparison stats between toxvaldb versions.

#### Usage

```
toxvaldb_release_comparison_stats(repoDir)
```

# Arguments

repoDir Path to Repo/ folder

#### Value

None. RData file is saved.

 $toxval\_relations hip. suggestions \\ toxval\_relations hip. suggestions$ 

#### **Description**

Provide suggestions for linking records to each other.

# Usage

toxval\_relationship.suggestions(toxval.db, source = NULL, subsource = NULL)

# Arguments

toxval.db The version of toxvaldb to use.

source Source to be fixed

subsource Subsource to be fixed (NULL default)

toxval\_type.species.mismap

Find species and toxval\_type mismaps, e.g. species other than human fro RfD, RfC, cancer sloper, MSL, etc.

#### **Description**

Find species and toxval\_type mismaps, e.g. species other than human fro RfD, RfC, cancer sloper, MSL, etc.

# Usage

toxval\_type.species.mismap(toxval.db)

# **Arguments**

toxval.db Database version

source The source to be updated

#### Value

Write a file with the results

# Description

Parse metadata logs to fill in NULL values from record\_source table records.

# Usage

```
update_doc_metadata_from_log(toxval.db)
```

# **Arguments**

toxval.db

The database version to use

#### **Details**

**DETAILS** 

#### Value

None. SQL update statements are executed.

#### See Also

 $bind\_rows, mutate, distinct, across, filter, group\_by, reexports, case\_when, count, select, \\ mutate-joins, group\_split read\_excel str\_trim, str\_split pivot\_longer, unite, pivot\_wider, \\ drop\_na$ 

#### **Examples**

```
## Not run:
if(interactive()){
    #EXAMPLE1
    }
## End(Not run)
```

%>%

Pipe operator

#### Description

```
See magrittr::%>% for details.
```

#### Usage

lhs %>% rhs

96 %>%

# Arguments

1hs A value or the magrittr placeholder.

rhs A function call using the magrittr semantics.

# Value

The result of calling 'rhs(lhs)'.

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