# Package: con2aqi (via r-universe)

August 24, 2024

Type Package
Title Calculate the AQI from Pollutant Concentration
Version 0.1.0
Author Zhicheng Du, Ziqiang Lin, Yuantao Hao
Maintainer Zhicheng Du <dgdzc@hotmail.com></dgdzc@hotmail.com>
Description To calculate the AQI (Air Quality Index) from pollutant concentration data. O3, PM2.5, PM10, CO, SO2, and NO2 are available currently. The method can be referenced at Environmental Protection Agency, United States as follows: EPA (2016) <a href="https://www3.epa.gov/airnow/aqi-technical-assistance-document-may2016.pdf">https://www3.epa.gov/airnow/aqi-technical-assistance-document-may2016.pdf</a> >.
License GPL-3
Encoding UTF-8
LazyData true
Imports utils
NeedsCompilation no
<b>Date/Publication</b> 2018-08-20 10:50:03 UTC
Repository https://marsdu1989.r-universe.dev
RemoteUrl https://github.com/cran/con2aqi
RemoteRef HEAD
<b>RemoteSha</b> 5fc7a0901481f0c217d3cd598903532327353925
Contents
con2aqi
Index

2 con2aqi

con2aqi

Calculate the AQI from Pollutant Concentration

#### **Description**

To calculate the AQI (Air Quality Index) from pollutant concentration data. O3, PM2.5, PM10, CO, SO2, and NO2 are available currently. The method can be referenced at Environmental Protection Agency, United States as follows: EPA (2016) <a href="https://www3.epa.gov/airnow/aqi-technical-assistance-document-may2016.pdf">https://www3.epa.gov/airnow/aqi-technical-assistance-document-may2016.pdf</a>>.

#### Usage

```
con2aqi(pollutant,con,type)
```

## **Arguments**

pollutant chatacter, one of the following pollutants: "o3", "pm25", "pm10", "co", "so2",

and "no2"

con numeric or numeric vector, concentration of the pollutant, the units of the pol-

lutants are as follows: ppm, microgram per cubic metres, microgram per cubic

metres, ppm, ppb, ppb

type character, only for "O3", one of the following types: "8h" and "1h"

## Value

aqi air quality index

#### Note

Please feel free to contact us, if you have any advice and find any bug!

Reference:

Air Quality Assessment Division, Office of Air Quality Planning and Standards, Environmental Protection Agency, United States. Publication No. EPA-454/B-16-002. https://www3.epa.gov/airnow/aqitechnical-assistance-document-may2016.pdf

Updates:

Updates is coming.

#### Author(s)

Zhicheng Du<dgdzc@hotmail.com>, Ziqiang Lin<zlin@albany.edu>, Yuantao Hao<haoyt@mail.sysu.edu.cn>

# **Examples**

```
con2aqi(pollutant="03",con=0.078,type="8h")#126
con2aqi(pollutant="03",con=0.162,type="1h")#148
con2aqi(pollutant="pm25",con=35.9)#102
con2aqi(pollutant="co",con=8.4)#90
```

# **Index**

con2aqi, 2