

README

(Updated March 27 2025)

Data Dictionary for DPR's Pesticide Air Monitoring Results Database

SAMPLE_YEAR: A four-digit number representing the year when the air sample was collected.

DATA_TYPE: The type of result data, either a Published or Preliminary. 'Published' refers to results that have been thoroughly reviewed, verified, and have been included in a publication. 'Preliminary' refers to newer results that have gone through a preliminary review and verification process, but may be subject to change after further verification and have yet to be included in a publication.

STUDY_TYPE: The type of monitoring study conducted, either a Short-term or Long-term. Long-Term means a study length greater than 11 months while Short-term refers to any study length of less than 11 months.

SAMPLING_AGENCY: A text code representing the agency who conducted the air monitoring sampling.

STUDY_NUMBER: A unique numerical code assigned to a study by DPR.

SITE_STATUS: The status of the air monitoring site (Active or Inactive).

SITE_CODE: A unique code given to a monitoring site composed of the study number and a location code unique to that study. The same monitoring station may be use for multiple studies (ie: Site code 999-E and 257-E. This site "Watsonville" was used in the Toxic Air Contaminant monitoring study and then adopted into the Air Monitoring Network study.

SITE_NAME: A name assigned by DPR for a monitoring site.

LATITUDE_WGS84: The latitude coordinate of an air monitoring station represented in decimal degrees and using the reference datum of WGS84.

LONGITUDE_WGS84: The longitude coordinate of an air monitoring station represented in decimal degrees and using the reference datum of WGS84.

SAMPLE_ID: A code comprised of the study number and a sample number, unique to a type of analysis.

START_DATE: The date when the sample began collecting and formatted as MM/DD/YYYY.

RUNTIME_MIN: The sampling duration time in minutes, where 1440 is equivalent to 24 hours.

FLOW_CCM: The average flow rate calculated or reported in units of cubic centimeters per minute.

CONCENTRATION_PPb: A numerical value representing the calculated concentration in parts per billion (ppb) for all quantifiable detections (above LOQ). Concentrations of all non-VOC's assume a conversion factor of 24.45 and molecular mass of chemicals listed in the chemical table for conversions from µg/sample to ppb.

CONCENTRATION_NG/M3: A numerical value representing the calculated concentration in nanograms per meter cubed (ng/m3) for all quantifiable detections (above LOQ).

CHEMICAL_NAME: The unique chemical name in which results are presented for.

LOQ_PPb: A numerical value representing the Limit of Quantification (LOQ) in ppb. LOQ is the highest detectable limit in which a sample can be reliably detected. The LOQ is specific to the time of analysis, for each chemical,

analytical lab and lab method. Generally, the LOQ is set to 5-10 times higher than the Method Detection Limit (MDL).

LOQ_NG/M3: A numerical value representing the Limit of Quantification (LOQ) in ng/m3. LOQ is the highest detectable limit in which a sample can be reliably detected. The LOQ is specific to the time of analysis, for each chemical, analytical lab and lab method. Generally, the LOQ is set to 5-10 times higher than the Method Detection Limit (MDL).

MDL_PPb: The Minimum Level of Detection that can reliably be detected in units of ppb. The MDL is specific to the time of analysis, for each chemical, analytical lab and lab method. Results below the MDL are reported as “ND” for Non-Detects.

MDL_NG/M3: Minimum Level of Detection that can reliably be detected in units of ng/m3. The MDL is specific to the time of analysis, for each chemical, analytical lab and lab method. Results below the MDL are reported as “ND” for Non-Detects.

LAB_CODE: A unique code assigned to the laboratory who conducted the sample analysis.

Reference Look up Tables

Study types

STUDY_TYPE	STUDY_TYPE DESCRIPTION
Short-Term	Typically, a seasonal study lasts only a couple weeks to a few months. These studies generally target one or a few chemicals during their high use period in a high use region. Sampling frequency is more intensive and during the study.
Long-Term	Typically, a study where monitoring occurs for at least once a week for at least a year.

Study Numbers

STUDY_NUMBER	STUDY_NAME
257	Air Monitoring Network
309	Monitoring of 1,3-D in Merced and Fresno Counties
311	Methyl Isothiocyanate (MITC) Seasonal Monitoring in Kern County, 2017
987	Organophosphate Monitoring in Kern County 2018
989	Seasonal Organophosphate Monitoring in Fresno and Tulare Counties 2018
990	2017 Seasonal Ambient Monitoring for the Pesticide Active Ingredients Methyl Bromide and Chloropicrin in Siskiyou County
991	Winter/Spring 2017 Seasonal Ambient Monitoring for Methyl Isothiocyanate (MITC) in Fresno County
992	Chloropicrin Seasonal Monitoring in Santa Barbara County
993	Organophosphate Seasonal Monitoring in Imperial County 2018
999	Toxic Air Contaminant Monitoring

Lab Codes

LAB_CODE	LAB_NAME
ARB	Air Resources Board: Northern Organics Laboratory Section
CDFA	California Department of Food and Agriculture: Center for Analytical Chemistry Laboratory

Sampling Agencies

SAMPLING_AGENCY	AGENCY_NAME
ARB	California Air Resources Board
DPR	California Department of Pesticide Regulation
SBCAC	Santa Barbara County Agriculture Commissioner
VCAC	Ventura County Agriculture Commissioner

Chemical

CHEMICAL_NAME	MOLAR_MASS (g/mol)
1,3-dichloropropene	110.970
Acephate	183.162
Bensulide	397.503
Captan	300.590
Chloropicrin	164.366
Chlorothalonil	265.910
Chlorpyrifos	350.575
Chlorpyrifos oa	334.514
Cypermethrin	416.298
Dacthal	331.954
DDVP	220.970
DEF	314.501
Diazinon	304.345
Diazinon oa	288.284
Dimethoate	229.249
Dimethoate oa	213.188
Diuron	233.092
Endosulfan	406.904
Endosulfan Sulfate	422.903
EPTC	189.317
Fenpyroximate	421.490
Iprodione	330.165
Malathion	330.350
Malathion oa	314.289
Methidathion	302.318
Methomyl	162.200
Methyl Bromide	94.939
Metolachlor (S-Metolachlor)	283.796
MITC	73.120
Norflurazon	330.669
Oryzalin	346.358
Oxydemeton Methyl	246.276
Oxyfluorfen	361.701
Pendimethalin	281.310
Permethrin	391.288
Phosphet	317.314
pp-dicofol	370.475
Propargite	350.473
Simazine	201.657
Trifluralin	335.283

Flagged Samples

FLAG_CD	FLAG_DESC
0	Missing initial flow measurement
1	Flow out of range-low
2	Flow out of range-high
3	Canister pressure out of range-low
4	Canister pressure out of range-high
5	Sample duration larger than 25 hours (24±1 hours)
6	Sample duration less than 23 hours (24±1 hours)
7	Lab equipment issue
8	Missing final flow measurement
9	Missing initial and final flow measurements
10	Lab spike recovery-low
11	Lab spike recovery-high
12	Lab analysis outside the 30-day holding limit
13	Lab analytical error
14	Canister pressure-low and Lab spike recovery-low

For questions about accessing DPR's Pesticide Air Monitoring Results Database Air.Monitoring@cdpr.ca.gov.