

## **Dictionary for HSEES Public Use Data 2002-2004**

This is the data dictionary for the 2002-2004 public use dataset of ATSDR's Hazardous Substances Emergency Events Surveillance System (HSEES).

**\*\*\*\*\*When printing this document it is recommended that the layout orientation be changed to landscape.\*\*\*\*\***

This document provides users with information for using the HSEES public use dataset. The data are related to events that occurred in the 15 HSEES states from 2002 through 2004. During the entire time period analyzed 13 states participated in HSEES: Colorado, Iowa, Louisiana, Minnesota, Missouri, North Carolina, New Jersey, New York, Oregon, Texas, Utah, Washington, and Wisconsin. Alabama and Mississippi participated during 2002-2003.

The public use dataset in text format contains tab delimited fields. The file contains 25,863 records, 87 variables, and a maximum record length of 920.

All data files contain one line of data for each event reported to HSEES. If the total number of chemicals in an event exceeds six, then only the first six are listed. A victim is defined as a person experiencing at least one documented adverse health effect (such as respiratory irritation or chemical burns) that likely resulted from the event and occurred within 24 hours of the release. The HSEES system does not identify the immediate cause of the adverse health effect other than the event itself. To determine the nature of victim injuries, state coordinators selected up to 7 entries among trauma, respiratory irritation, eye irritation, nausea or vomiting, heat stress, burns, skin irritation, dizziness or other CNS symptoms, and headache. Therefore, the number of injuries per event is likely to exceed the number of victims.

State coordinators could select up to two categories to describe the type of area where the event occurred, type of fixed-facility for fixed-facility events, and type of transportation for transportation events.

The Federal Information Processing Standard (FIPS) is used to represent county codes that are unique within each state. Pre-appended 2-digit FIPS state codes are provided to form the complete FIPS county code. Some events may lack the three digit county code because no county is listed for that particular event. A list of state and county FIPS codes for the United States can be found at the following website: <http://www.epa.gov/enviro/html/codes/state.html>.

Industry codes for the type of industry responsible for each HSEES event were assigned according to the 1990 Industrial Classification System of the U.S. Census Bureau (Bureau of the Census). The industry classification system consists of 243 codes (see Industry Codes).

A description chemical categories and the hierarchical assignment are provided (see Chemical Category Definitions document).

In 2002, the data collected in HSEES was slightly modified from previous year. A list of data modifications changes that users need to consider when combining the 1996-2001 HSEES data with the 2002-2004 HSEES data are provided at the end of this document.

Variable	Position	Type	Length	Description	Value
RCD_ID	1	NUM	8	Sequential record number	A number
STATE	2	CHAR	2	State where event occurred	AL = Alabama CO = Colorado IA = Iowa LA = Louisiana MN = Minnesota MO = Missouri MS = Mississippi NC = North Carolina NJ = New Jersey NY = New York OR = Oregon TX = Texas UT = Utah WA = Washington WI = Wisconsin
EVNTCNTY	3	CHAR	30	County where event occurred	Text string
FIPSCODE	4	CHAR	5	Five digit FIPS county code	See <a href="http://www.epa.gov/enviro/html/codes/state.html">http://www.epa.gov/enviro/html/codes/state.html</a>
EVNTTYPE	5	CHAR	1	Type of event	T = Transportation F = Fixed facility
THRTACTU	6	CHAR	1	Was the release actual or threatened	1 = All actually released into the environment 2 = All threatened to be released into the environment 3 = Some actually and some threatened to be released
YEAR	7	CHAR	4	Year when event occurred	2002 2003 2004
SEASON	8	CHAR	1	Season when event occurred	W = Winter (December, January, February) S = Spring (March, April, May) U = Summer (June, July, August) F = Fall (September, October, November)
WEEKDAY	9	CHAR	1	Portion of week when event	Y = Weekday (Monday – Friday)

				occurred	N = Weekend (Saturday – Sunday)
TIME	10	CHAR	1	Time range that event occurred	D = 06:00 – 17:59 pm N = 18:00 – 05:59 pm
AREATYP1	11	CHAR	1	Description one of type of area where event occurred	0 = Undeveloped 1 = Industrial 2 = Commercial 3 = Residential 4 = Agriculture A = Military facility/DOE/DOD C = Recreational
AREATYP2	12	CHAR	1	Description two of type of area where event occurred	(Codes are the same as AREATYP1)
AREA_RES	13	CHAR	1	Residential area within ¼ mile of event	1 = Yes 2 = No
PRIM_FACT	14	CHAR	1	First contributing factor	2 = Equipment failure 3 = Operator Error 8 = Other G = Intentional H = Bad weather condition S = Illegal act
SEC_FACT	15	CHAR	1	Second contributing factor	1=Improper mixing 2=Equipment failure 3=Human error 4=Improper filling, loading, or packing 8=Other A=Performing maintenance B=System/process upset C=System start up and shutdown E=Power failure/electrical problems F=Unauthorized/improper dumping I=Vehicle or vessel collision P=Vehicle or vessel derailment/rollover/capsizing; J=Fire

					K=Explosion L=Overspray/misapplication Q=Illicit drug production related N=No secondary factor O=Loadshift R=Forklift puncture
FIXTYPE1	16	CHAR	1	Fixed facility type one	0 = Transportation within a fixed facility 2 = Process vessel 3 = Piping 4 = Material handling area 5 = Storage area above ground 6 = Storage area below ground 7 = Dump/waste area 8 = Other A = Ancillary process equipment B = Transformer or capacitor C = Incinerator D = Heating/Cooling for building F = Outdoor, farming or industrial areas G = Outdoor, non-farming or non-industrial areas H = Indoor, non-industrial, living (residence) areas I= Indoor, non-industrial, non-living areas J = Laboratory
FIXTYPE2	17	CHAR	1	Fixed facility type two	(Codes are the same as FIXTYPE1)
TRNTYPE1	18	CHAR	1	Transportation type one	2 = Ground 3 = Rail 4 = Water 5 = Air 6 = Pipeline
TRNTYPE2	19	CHAR	1	Transportation type two	(Codes are the same as TRNTYPE1)
IND_DESC	20	CHAR	75	Industry code description	Text String
IND_CODE	21	CHAR	3	Three digit industry code	(See Industry Codes)
ATHOMQTR	22	NUM	8	Number of people at home	A number

				within ¼ mile of event	
LIVEQTR	23	NUM	8	Number of people living within ¼ mile of event	A number
EVAC_ORD	24	CHAR	1	Evacuation ordered	Y = Yes N = No
EVAC_PPL	25	NUM	8	Total number of people evacuated as a result of the event	A number
SHLT_ORD	26	CHAR	1	In-place sheltering ordered	Y=Yes N=No
DCON_SN	27	NUM	8	Number of uninjured people decontaminated at the scene	A number
DCON_MF	28	NUM	8	Number of uninjured people decontaminated at a medical facility	A number
TOT_CHEM	29	NUM	8	Total number of chemicals spilled	A number
SUB_CAT	30	CHAR	2	Substance category	(see Chemical Category Definitions) 1 = Acid 2 = Ammonia 3 = Bases 4 = Chlorine 5 = Other inorganic substances category 6 = Paints and dyes 7 = Pesticides/Agricultural 8 = Polychlorinated Biphenyls 9 = Volatile Organic Compounds 10 = Other substance category not listed 12 = Mixture across chemical categories A = Formulations B = Hetero-Organics C = Hydrocarbons D = Oxy-Organic

					E = Polymers 88 = Multiple substance categories
CHEM1	31	CHAR	70	Chemical name one	Text string
CHM_QCAT1	32	CHAR	1	Category for the amount of Chemical #1	B=1-<10 C=10-<100 D=100-<500 E=500-<1,000 F=1,000-<10,000 G=10,000+
CHM_UNIT1	33	CHAR	1	Unit of measure for the amount of Chemical #1	1=Pounds 2=Kilograms 3=Gallons 4=Liters 5=Cubic feet 6=Ounces 7=Milliliters 8=Pico curies A=Tons
RELS1CHEM1	34	CHAR	1	First type of release for Chemical #1	1 = Spill 2 = Air Emission 3 = Fire 4 = Explosion 7 = Threatened 8 = Other type of release
RELS2CHEM1	35	CHAR	1	Second type of release for Chemical #1	(Codes are the same as RELS1CHEM1)
CHEM2	36	CHAR	70	Chemical name two	Text string
CHM_QCAT2	37	CHAR	1	Category for the amount of Chemical #2	(Codes are the same as CHM_QCAT1)
CHM_UNIT2	38	CHAR	1	Unit of measure for the amount of Chemical #2	(Codes are the same as CHM_UNIT1)
RELS1CHEM2	39	CHAR	1	First type of release for chemical #2	(Codes are the same as RELS1CHEM1)

RELS2CHEM2	40	CHAR	1	Second type of release for chemical #2	(Codes are the same as RELS1CHEM1)
CHEM3	41	CHAR	70	Chemical name three	Text string
CHM_QCAT3	42	CHAR	1	Category for the amount of Chemical #3	(Codes are the same as CHM_QCAT1)
CHM_UNIT3	43	CHAR	1	Unit of measure for the amount of Chemical #3	(Codes are the same as CHM_UNIT1)
RELS1CHEM3	44	CHAR	1	First type of release for chemical #3	(Codes are the same as RELS1CHEM1)
RELS2CHEM3	45	CHAR	1	Second type of release for chemical #3	(Codes are the same as RELS1CHEM1)
CHEM4	46	CHAR	70	Chemical name four	Text string
CHM_QCAT4	47	CHAR	1	Category for the amount of Chemical #4	(Codes are the same as CHM_QCAT1)
CHM_UNIT4	48	CHAR	1	Unit of measure for the amount of Chemical #4	(Codes are the same as CHM_UNIT1)
RELS1CHEM4	49	CHAR	1	First type of release for chemical #4	(Codes are the same as RELS1CHEM1)
RELS2CHEM4	50	CHAR	1	Second type of release for chemical #4	(Codes are the same as RELS1CHEM1)
CHEM5	51	CHAR	70	Chemical name five	Text string
CHM_QCAT5	52	CHAR	1	Category for the amount of Chemical #5	(Codes are the same as CHM_QCAT1)
CHM_UNIT5	53	CHAR	1	Unit of measure for the amount of Chemical #5	(Codes are the same as CHM_UNIT1)
RELS1CHEM5	54	CHAR	1	First type of release for chemical #5	(Codes are the same as RELS1CHEM1)
RELS2CHEM5	55	CHAR	1	Second type of release for chemical #5	(Codes are the same as RELS1CHEM1)
CHEM6	56	CHAR	70	Chemical name six	Text string
CHM_QCAT6	57	CHAR	1	Category for the amount of Chemical #6	(Codes are the same as CHM_QCAT1)
CHM_UNIT6	58	CHAR	1	Unit of measure for the	(Codes are the same as CHM_UNIT1)

				amount of Chemical #6	
RELS1CHEM6	59	CHAR	1	First type of release for chemical #6	(Codes are the same as RELS1CHEM1)
RELS2CHEM6	60	CHAR	1	Second type of release for chemical #6	(Codes are the same as RELS1CHEM1)
TOT_VICT	61	NUM	8	Total number of victims of the event	A number
AGE_RNG1	62	NUM	8	Number of victims between birth and 19 years of age	A number
AGE_RNG2	63	NUM	8	Number of victims between 20 and 64 years of age	A number
AGE_RNG3	64	NUM	8	Number of victims 65 years of age or older	A number
VICT_EMP	65	NUM	8	Number of employee victims	A number
VICT_RESP	66	NUM	8	Number of responder victims	A number
VICT_GP	67	NUM	8	Number of general public victims	A number
VICT_STD	68	NUM	8	Number of student victims	A number
INJ_TRA	69	NUM	3	Number of victims with trauma injuries	A number
INJ_RESP	70	NUM	3	Number of victims with respiratory system irritation	A number
INJ_EYE	71	NUM	3	Number of victims with eye irritation	A number
INJ_GASTRO	72	NUM	3	Number of victims with gastrointestinal problems	A number
INJ_HEAT	73	NUM	3	Number of victims with heat stress injuries	A number
INJ_BURNS	74	NUM	3	Number of victims with burn injuries	A number
INJ_SKIN	76	NUM	3	Number of victims with	A number

				skin irritation injuries	
INJ_CNS	77	NUM	3	Number of victims with dizziness or other CNS symptoms	A number
INJ_HACHE	78	NUM	3	Number of victims with headaches	A number
INJ_HRT	79	NUM	3	Number of victims with heart problems	A number
INJ_SOB	80	NUM	3	Number of victims with shortness of breath	A number
SEV_DTH	81	NUM	8	Number of victims where injury severity was deadly	A number
SEV_HOSPA	82	NUM	8	Number of victims where injury severity required treatment at hospital and admittance	A number
SEV_HOSPR	83	NUM	8	Number of victims where injury severity required treatment at hospital without being admitted or victim was transported to hospital for observation with no treatment	A number
SEV_NHOSP	84	NUM	8	Number of victims where injury severity required treatment on the scene (first aid); or victim was seen by a private physician within 24 hrs; or injuries were experienced within 24 hrs of the event and reported by an official	A number
VDCON_SN	85	NUM	8	Number of injured people	A number

				decontaminated at the scene	
VDCON_MF	86	NUM	8	Number of injured people decontaminated at a medical facility	A number
VDCON_BOTH	87	NUM	8	Number of injured people decontaminated at both the scene and a medical facility	A number

**Public Use Data File 2002-2004 – Things to consider due to HSEES changes in 2002-2004 relative to the 1996-2001 HSEES system and data file.**

1. AREATYP1 & AREATYP2 (two variables that capture information on the type of area where the event occurred) - - Six of the 1996-2001 codes were deleted as possible categories: Rural/agricultural; Forest; Wetlands or coastal; Surface water; Other; Military facility/DOE/DOD; Railway, railyard, and roadways.
2. PRIM\_FACT & SEC\_FACT – In 1996-2001 In 1996-2001 events, state coordinators selected two categories from a list of 17 choices to describe factors contributing to the release. In 2002-2004 events, state coordinators were asked to select a primary factor (PRIM\_FACT) from a list of six choices and a secondary factor (SEC\_FACT) from a list of 16 choices. Furthermore, in 1996-2001 category G='Deliberate damage' was reworded for 2002-2004 to G='Intentional or Illegal act.
3. Decontamination questions were asked separately for injured and uninjured persons. Now have number of uninjured persons at the scene (DCON\_SN), number of uninjured persons at a medical facility (DCON\_MF), number of injured persons at the scene (VDCON\_SN), number of injured persons at a medical facility (VDCON\_MF), and number of injured persons at both the scene and a medical facility (VDCON\_BOTH).
4. CHM\_QCAT -- Chemical quantity category of <1 was added.
5. CHM\_UNIT -- Chemical unit “Ounces” was expanded to “Ounces by weight” and “Ounces by volume.”
6. RELS1CHEM & RELS2CHEM – For type of release, radiation was added as a category; the wording for category 2=Air Emissions was changed to “Volatilization/aerosolized (vapor),” and the category 8=Other was dropped.
7. In 2003 and 2004, in-house codes were introduced to reflect primarily illegal activity ‘non-industry’ events. These codes were used in addition to the 1990 US Census of Population Industrial Classification System Codes. These new codes are reflected in the text field that provides an industry description (IND\_DESC) as follows:

IND_CODE	IND_DESC

blank		Abandoned (dumped on highway or other property)
blank		Abandoned (former business, currently non-operating)
blank		Private vehicle
blank		Private property, n.e.c.
blank		Illegal activity (non-meth drug related) - private property, n.e.c.
761		Illegal activity (non-meth drug related) - private residence
691		Illegal activity (non-meth drug related) - retail facility
blank		Illegal activity (non-meth drug related) – school
blank		Illegal activity (non-meth drug related) - other/unspecified location
030		Illegal activity (meth drug related) - farm/agricultural facility
762		Illegal activity (meth drug related) - hotel/motel
blank		Illegal activity (meth drug related) - private property, n.e.c
761		Illegal activity (meth drug related) - private residence
blank		Illegal activity (meth drug related) - private vehicle
blank		Illegal activity (meth drug related) - other/unspecified location