

Border Releases

In 2010, 33 facilities located within 100 km of the Arizona border to Mexico reported a total of 10,500,000 pounds of toxic chemical releases. Arizona's on-site and off-site releases increased 2.3% (105,519 pounds) when compared to 2009 data.

Total Releases for Reporting Years 2008 – 2010

Year	Air	Water	Underground Injection On-Site Land	Off-Site	
2008	474,157	250	-	18,296,913	10,687
2009	343,455	-	-	4,658,709	10,170
2010	458,769	-	-	4,726,705	47,693

Note: If no release amounts are shown, this means the facility manufactures, processes, or otherwise uses above threshold amounts of the chemical, which triggers a requirement to report. It may still have no releases.

In determining release quantities for metal compounds, facilities only consider the primary metal portion of the compound. For instance, a facility reporting for lead compounds only reports the lead portion of the lead compounds released.

What is a Release?

A Toxics Release Inventory (TRI) "release" is defined as the amount of a toxic chemical released on-site (to air, water, underground injection, landfills, and other land disposal), and the amount transferred off-site for disposal; it is measured in pounds, unless stated otherwise.

Releases to the Environment

Air: Air releases increased 34% (115,314 pounds) since 2009.

On-Site Land: Land releases increased 1% (67,996 pounds) since 2009.

Off-site: Off-site releases increased 369% (37,523 pounds) since 2009.

Facilities with Largest Chemical Releases

The top ten facilities in the Arizona-Mexico Border area for total on-site and off-site releases of all chemicals were the following:

	Facility Name	City	Total Releases (pounds)
1	FREEPORT-MCMORAN SIERRITA INC.	Green Valley	2,502,369
2	ASARCO LLC MISSION COMPLEX	Sahuarita	1,593,887
3	NORD RESOURCES CORP. JOHNSON CAMP MINE	Dragoon	381,795
4	ARIZONA ELECTRIC POWER COOPERATIVE INC.	Cochise	353,422
5	APACHE NITROGEN PRODUCTS INC.	Saint David	104,159
6	LEARJET INC.	Tucson	79,864
7	IRVINGTON GENERATING STATION	Tucson	79,320
8	US MARINE CORPS BARRY M GOLDWATER RANGE (PART)	Yuma	66,212
9	SOUTHWEST FIBERGLASS LLC	Tucson	16,886
10	INTER-FAB INC.	Tucson	10,840

Top 10 Released Chemicals

The top released chemicals based on total on-site and off-site releases in Arizona were the following:

	Chemical	Total Releases (pounds)	Percentage of Total Releases
1	LEAD AND LEAD COMPOUNDS	3,502,450	67%
2	MANGANESE	395,213	8%
3	CHROMIUM COMPOUNDS (EXCEPT CHROMITE ORE MINED IN THE TRANSVAAL REGION)	315,204	6%
4	HYDROCHLORIC ACID (1995 AND AFTER ACID AEROSOLS ONLY)	115,586	2%
5	BARIUM COMPOUNDS	101,349	2%
6	AMMONIA	97,417	2%
7	NITRATE COMPOUNDS	85,980	2%
8	HYDROGEN FLUORIDE	76,547	1%
9	CHROMIUM	66,149	1%
10	NICKEL COMPOUNDS	64,020	1%

PBT Chemical Releases

Starting in 2000, EPA established more stringent reporting thresholds for persistent bioaccumulative toxic (PBT) chemicals originally on, or added to, the TRI chemical list. PBT chemicals are of particular concern not only because they are toxic, but also because they remain in the environment for long periods of time, are not readily destroyed, and build up or accumulate in body tissue. The TRI PBT chemicals include dioxin and dioxin-like compounds, lead and lead compounds, mercury and mercury compounds, polycyclic aromatic compounds (PACs), polychlorinated biphenyls (PCBs), and certain pesticides, among other chemicals.

Chemical	Air	Land	Offsite	Total Releases
BENZO (G,H,I) PERYLENE	0	-	-	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS*	0	-	-	0
LEAD & LEAD COMPOUNDS	405	3,498,498	3,546	3,502,450
MERCURY	223	12	2	236
MERCURY COMPOUNDS	0	3,553	307	3,860
POLYCYCLIC AROMATIC COMPOUNDS	1	-	-	1
GRAND TOTAL	629	3,502,063	3,855	3,506,547

*Releases of most Persistent, Bioaccumulative and Toxic (PBT) chemicals are in pounds. Dioxin and dioxin-like compounds data are in grams.

On-line Access

For more information, see:

www.epa.gov/tri

(For national TRI information)

www.epa.gov/region09/tri

(For Regional TRI information)

Or contact Lily Lee, Toxic Release Inventory Coordinator, US EPA Region 9, at lee.lily@epa.gov or 415-947-4187.

Release data alone are not sufficient to determine exposure or to calculate potential risks to human health and the environment. TRI data, in conjunction with other information, such as the toxicity of the chemical, the release medium (e.g., air), and site-specific conditions, can be used as a starting point in evaluating exposures that may result from releases of toxic chemicals.

Facilities with Largest PBT Releases

	Facility Name	County	Total Releases (pounds)
1	FREEPORT-MCMORAN SIERRITA INC.	Pima	1,701,098
2	ASARCO LLC MISSION COMPLEX	Pima	1,379,390
3	NORD RESOURCES CORP. JOHNSON CAMP MINE	Cochise	372,377
4	US MARINE CORPS BARRY M GOLDWATER RANGE (PART)	Yuma	20,516
5	USDOD FORT HUACHUCA - RANGES	Cochise	9,625
6	US ARMY GARRISON YUMA PROVING GROUND MAIN FACILITY	Yuma	7,958
7	ARIZONA ELECTRIC POWER COOPERATIVE INC.	Cochise	4,241
8	US DOD USAF DAVIS-MONTHAN AFB	Pima	3,900
9	IRVINGTON GENERATING STATION	Pima	2,270
10	FREEPORT-MCMORAN SIERRITA INC.	Pima	1,931