

U.S. EPA REGION 9 BORDER 2020 PROGRAM

<https://www.epa.gov/border2020>

INDUSTRIAL RELEASE FACT SHEET: CALIFORNIA - BAJA CALIFORNIA BORDER REGION

Introduction

This fact sheet summarizes environmental releases of toxic chemicals from industrial facilities in the Border Region reporting to the U.S. Toxics Release Inventory (TRI) and Mexico’s Registro de Emisiones y Transferencia de Contaminantes (RETC) for 2012-2014 and 2011-2013, respectively. The Border Region is defined as within 100 km (62.5 miles) of the U.S. - Mexico Border.

TRI: www.epa.gov/toxics-release-inventory-tri-program

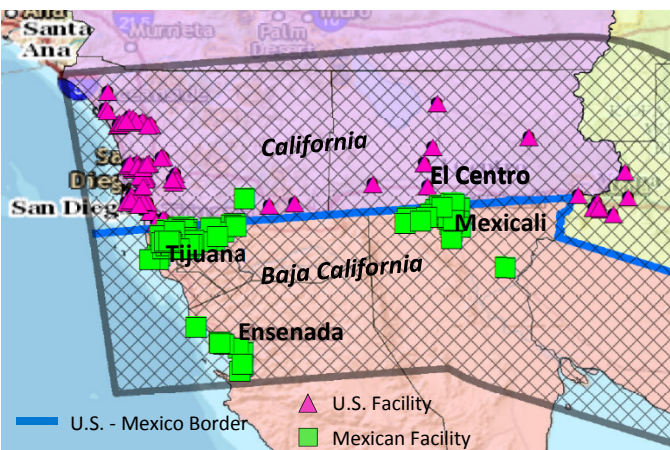
RETC: <http://apps1.semarnat.gob.mx/retc/index.html>

Data between the RETC and the TRI are not directly comparable because many reporting requirements – such as sectors covered, the pollutants subject to reporting and their processing and release thresholds, as well as the types of releases and transfers covered – differ significantly between the programs.

In addition to the source websites above, visit the Commission for Environmental Cooperation’s Taking Stock Online for more information about the PRTRs:

<http://www.cec.org/tools-and-resources/taking-stock/taking-stock-online-north-american-industrial-pollution>

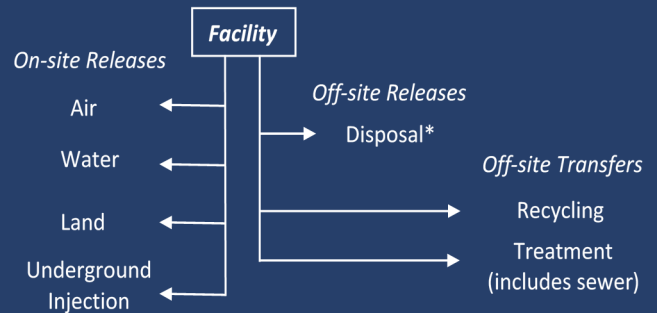
Distribution of Reporting Facilities



Pollutant Release and Transfer Registers (PRTRs)

PRTRs, including Mexico’s *Registro de Emisiones y Transferencia de Contaminantes* (RETC) and the United States’ *Toxics Release Inventory* (TRI), are national programs that track releases and transfers of pollutants that may pose a threat to human health and the environment.

Facilities subject to PRTR reporting must annually report the amounts of pollutants they release and/or transfer. Releases are emissions to air, discharges to water, placement in some type of land disposal, or transport off-site for release or disposal. Transfers include pollutants sent for recycling or further management such as energy recovery, treatment, and/or discharge to the sewer.



*Includes all metals taken off-site, except those recycled.

Metals are a special case. Those sent off-site for disposal or to sewage, treatment, or energy recovery are included in the off-site releases category. Due to their physical nature they are unlikely to be destroyed and therefore may eventually enter the environment.

Contact Information

If you have any questions or comments on this fact sheet, please contact: Emily Pimentel, U.S. EPA, by phone at (415) 972-3326 or by e-mail at pimentel.emily@epa.gov. <https://www.epa.gov/border2020>

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Reported Releases and Transfers Overview

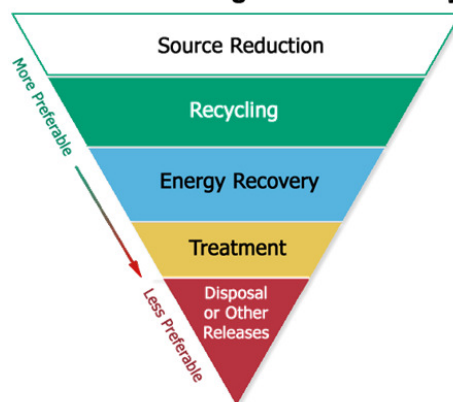
	California Border Region			Baja California Border Region		
	2012	2013	2014	2011	2012	2013
Number of Facilities Reporting Releases	82	84	84	68	93	103
Total Reported Releases and Transfers	215	206	203	265	298	348
Total On-site and Off-site Disposal or Other Releases (pounds)	4,394,372	4,437,394	1,695,668	37,883,102	18,182,154	17,289,663
Total On-site (pounds)	3,646,341	3,777,229	1,553,151	37,306,669	18,122,807	17,188,724
- Air (pounds)	430,374	355,547	389,615	37,294,128	18,118,406	17,185,666
- Water (pounds)	86,989	97,983	54,021	2,300	4,078	1,710
- Land (pounds)	3,105,134	3,303,015	1,089,515	10,241	323	1,347
- Underground Injection (pounds)	23,843	20,684	20,000	-	-	-
Total Off-site (pounds)	748,031	660,165	142,517	576,433	59,347	100,940

Production-Related Waste Management

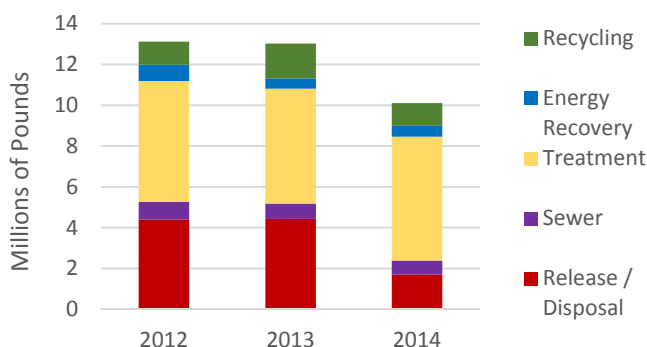
Production-related waste management, as shown in the graphs below, is information from facilities on the quantities of toxic chemicals recycled, combusted for energy recovery, treated for destruction, and disposed of or otherwise released on- and off-site. The RETC also tracks “co-processing,” which is input from another production process (includes energy recovery).

As illustrated in the Waste Management Hierarchy (to the right), elimination of waste at its source is the most preferable. For waste that is generated, the preferred management methods includes reuse or recycling, followed by burning for energy recovery, treatment, and, as a last resort, disposing of or otherwise releasing the waste. By tracking waste management practices, the goal is that facilities will shift from disposal or other releases toward increasingly safer waste management methods over time.

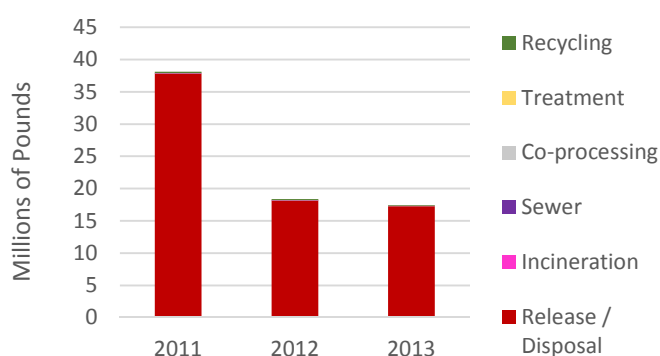
The Waste Management Hierarchy



**Production-Related Waste Managed
California Border Region
TRI (2012 – 2014)**



**Production-Related Waste Managed
Baja California Border Region
RETC (2011 – 2013)**



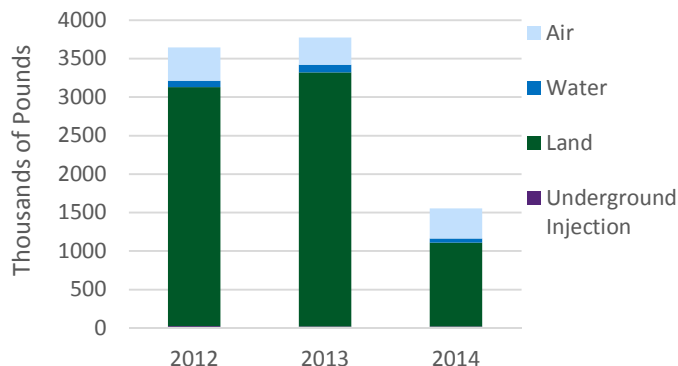
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Total On-site Releases by Environmental Media

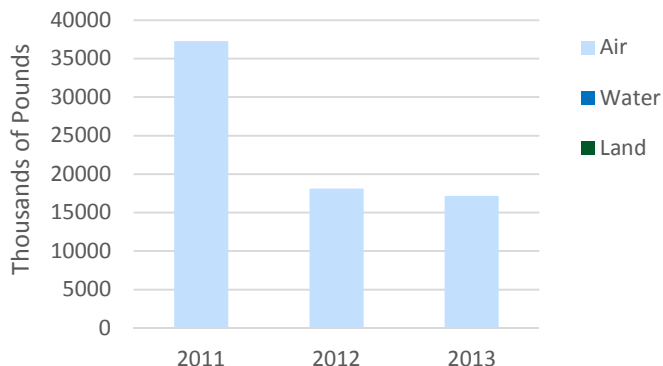
The following charts represent releases of chemicals to the environment reported to the TRI and RETC, respectively, in the Border Region. A “release” of a chemical means that it is emitted to the air, discharged to water, placed in some type of land disposal, or trans-

ferred off-site for disposal or release. Note that releases to underground injection are not subject to RETC reporting. Also, greenhouse gases are not subject to TRI reporting and are not included in this fact sheet.

**Total On-site Releases
California Border Region
TRI (2012 – 2014)**



**Total On-site Releases
Baja California Border Region
RETC (2011 – 2013)**



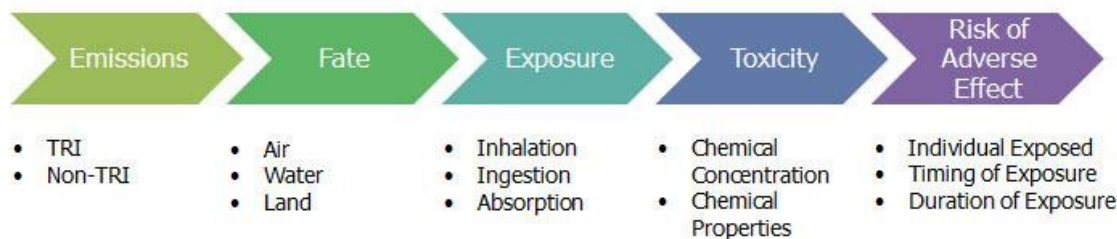
Hazard, Risk and Toxicity

The TRI and RETC provide data about environmental releases of toxic chemicals from industrial facilities measured by weight. Weight (e.g., pounds or kilograms) of releases, however, is not an indicator of any health risks posed by the chemicals. The human health risks resulting from exposure to toxic chemicals are determined by many factors, as shown in the figure below.

The *hazard* of a toxic chemical is its ability to cause an increased incidence of adverse health effects (e.g., cancer, birth defects). *Toxicity* is a way to measure the hazard of a chemical. The *risk* of a toxic chemical is the chance of adverse health effects occurring as a result of exposure to the chemical. Risk is a function of hazard and exposure.

This fact sheet uses “toxicity weights,” a screening-level tool developed by the U.S. EPA Risk-Screening Environmental Indicators (RSEI) Program, to rank facilities reporting the largest pollutant releases (page 4) and pollutants by media (page 5). Hazard score calculations consist of pounds released multiplied by a specific chemical’s toxicity weight, which is a weight proportional to a chemical’s toxicity.

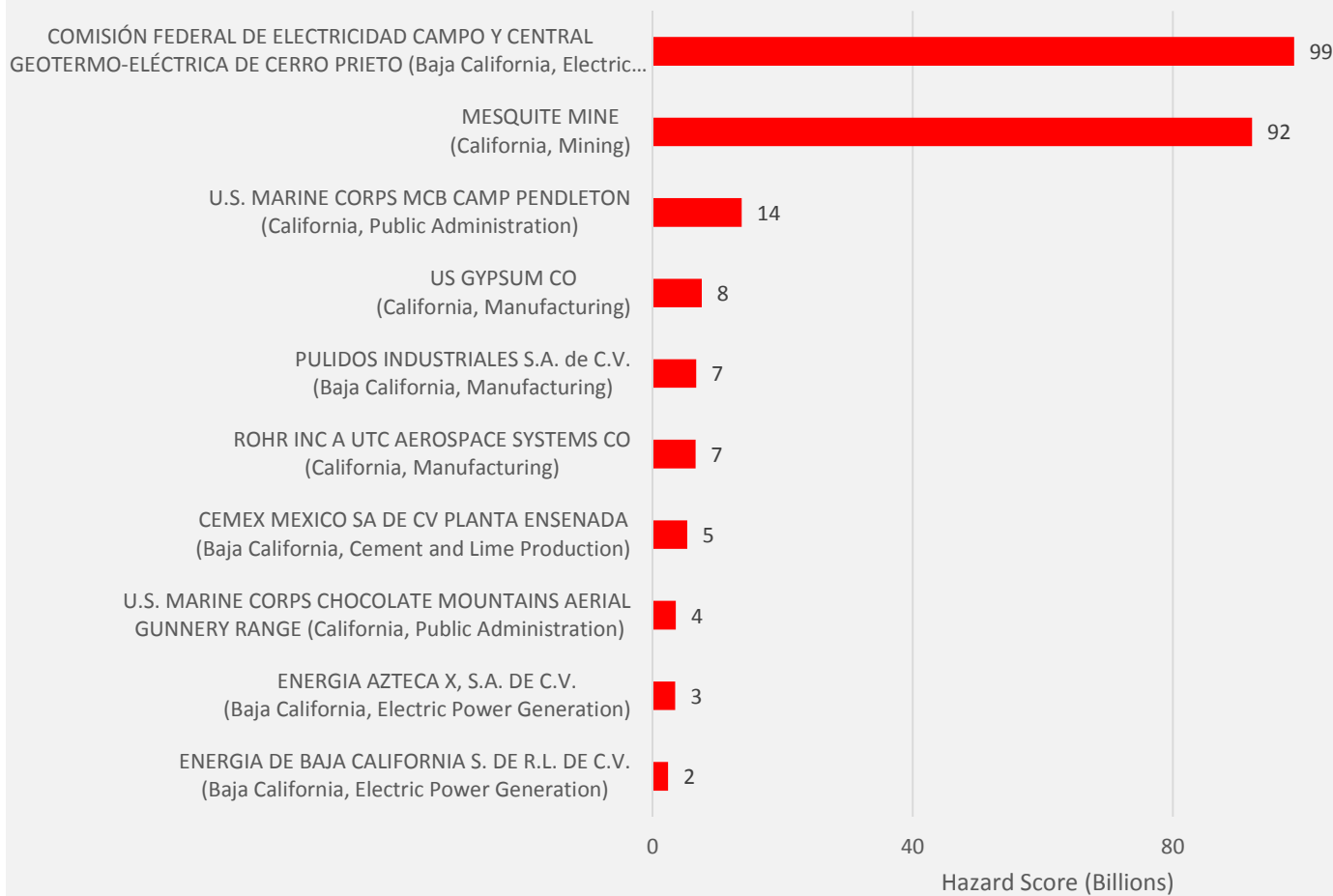
Hazard scores are not a measure of risk. The assessment of risk typically requires site-specific information, more refined exposure information, and detailed population distributions. The data shown here are intended to provide a starting point to evaluate exposure and the potential risks that reported chemicals pose to human health and the environment.



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Facilities Reporting the Largest Pollutant Releases

**Top Ten Facilities with Chemical Releases to Air, Water, Land, or Off-Site Disposal or Other Releases
Ranked by Hazard Score
California – Baja California Border Region
Last 3 Reporting Years: TRI (2012 – 2014) AND RETC (2011 – 2013)**



Pollutants by Media

The pie charts on the following page illustrate the top pollutants released to air, water, and land, ranked by hazard score (unitless). Heavy metals in all media and hydrogen sulfide in air (related to electric power generation at the) are the most significant chemical releases. Chromium and lead were the most significant chemical releases in off-site release / disposal (not shown).

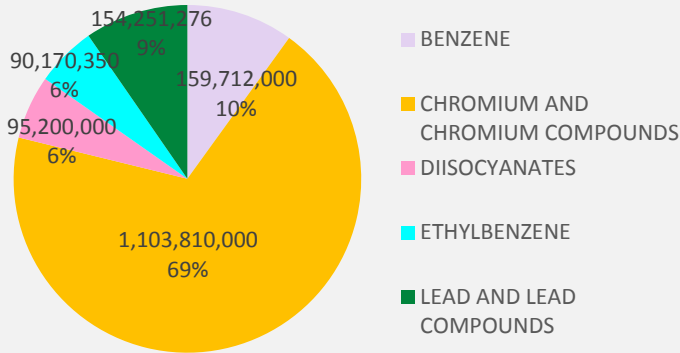
Further information for individual chemicals, including exposure-related health effects, is available at:

Agency for Toxic Substances and Disease Registry
(ASTDR) ToxFAQs
<http://www.atsdr.cdc.gov/toxfaqs/index.asp>

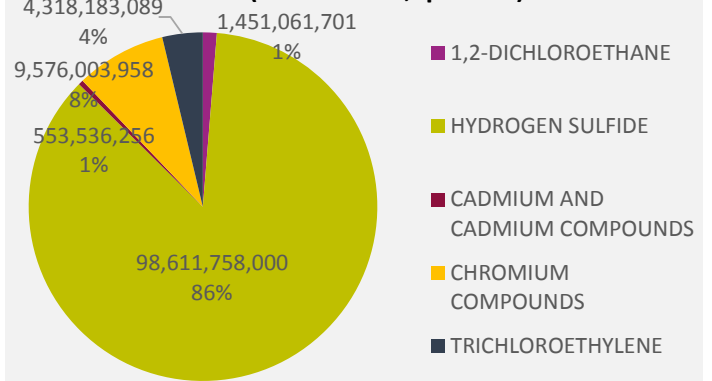
State of New Jersey Right-to-Know Hazardous Substance
Fact Sheets
<http://web.doh.state.nj.us/rtkhsfs/indexfs.aspx>

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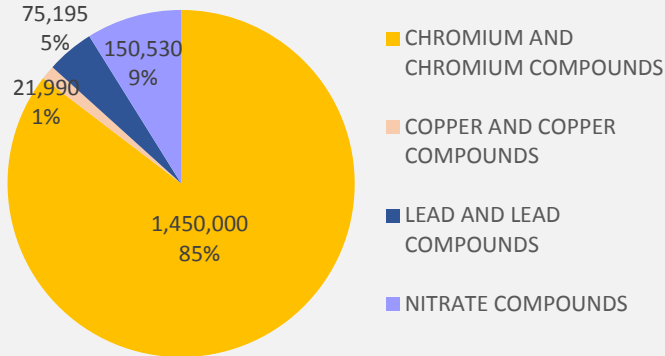
**Chemical Releases to Air Ranked by Hazard Score
California Border Region
TRI (2012 – 2014; pounds)**



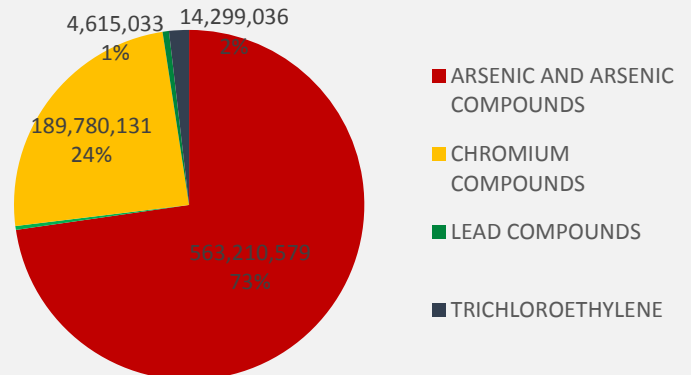
**Chemical Releases to Air Ranked by Hazard Score
Baja California Border Region
RETC (2011 – 2013; pounds)**



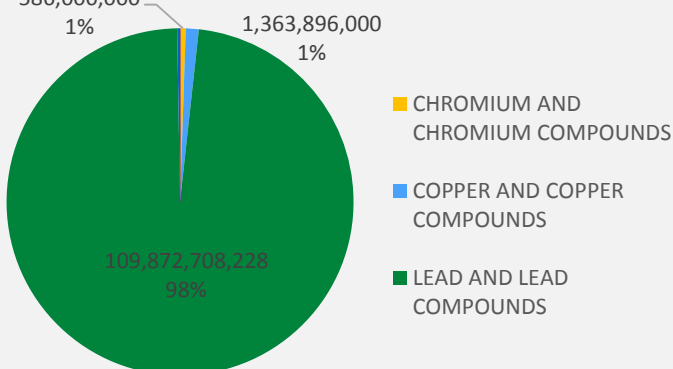
**Chemical Releases to Water Ranked by Hazard Score
California Border Region
TRI (2012 – 2014; pounds)**



**Chemical Releases to Water Ranked by Hazard Score
Baja California Border Region
RETC (2011 – 2013; pounds)**



**Chemical Releases to Land Ranked by Hazard Score
California Border Region
TRI (2012 – 2014; pounds)**



**Chemical Releases to Land Ranked by Hazard Score
Baja California Border Region
RETC (2011 – 2013; pounds)**

