## **Industry Sector Profile: Chemical Manufacturing**

## Chemical Manufacturing



Chemical manufacturers produce a variety of products, such as basic chemicals, products used by other manufacturers (such as synthetic fibers, plastics, and pigments) and consumer products (such as paints, fertilizers, drugs, cosmetics, and soaps). The sector had the third largest total disposal or other releases for 2011 with a decrease of 3% from 2010 to 2011. Since 2003, the sector's disposal or other releases decreased by 13%, mainly due to a reduction in air emissions.

## **Quick Facts for 2011**

Number of TRI Facilities:3,472Facilities Reporting NewlyImplemented Source Reduction in 2011:545	
On-site and Off-site Disposal	
or Other Releases:	491.1 million lbs
On-site:	427.3 million lbs
• Air:	160.1 million lbs
• Water:	36.3 million lbs
• Land:	53.4 million lbs
<ul> <li>Underground</li> </ul>	
Injection:	177.5 million lbs
Off-site:	63.8 million lbs

## Production-Related Waste Managed:

9,119.7 million lbs

3,614.9 million lbs

- Recycled: 3,610.1 million lbs
- Energy Recovery: 1,399.1 million lbs
- Treated:
  - Disposed of or

Otherwise Released: 495.6 million lbs



Partly due to the size and scope of the chemical manufacturing sector, it has consistently had the largest production-related waste managed every year since 2003, representing 40% of the total for all industries in 2011. As shown in Figure 26, the sector's total production-related waste managed decreased by 15% from 2003 to 2011. Compare this to the black solid line in the figure, which shows this sector's production fluctuating over the time period but changing little overall. Production-related waste managed decreased decreased despite the sector's constant



production, suggesting that the decrease in production-related waste managed by the sector was due to factors other than production.



Although the chemical manufacturing sector has consistently had the largest productionrelated waste managed, 16% of facilities in the sector reported having initiated practices to reduce their toxic chemical use and waste generation through source reduction activities in 2011. The most commonly reported source reduction activity for the sector was good operating practices, which includes activities such as improved maintenance procedures or production schedules. In one case, a facility reported that "better process control and operator training have contributed to the decrease in ammonia emissions in liquid effluents." Process modifications and spill and leak prevention were also commonly reported.

To learn more about this sector, visit EPA's Chemical Compliance Assistance website at <a href="http://www.epa.gov/compliance/assistance/sectors/chemical.html">www.epa.gov/compliance/assistance/sectors/chemical.html</a>.