



# Statewide Hazmat Response Work Group



<https://dec.alaska.gov/spar/ppr/prevention-preparedness/hazmat/>

## Extremely Hazardous Substance (EHS) Release Summary for Calendar Year 2016 (September 17, 2018)

The State of Alaska received reports of 89 extremely hazardous substances (EHS) releases during Calendar Year (CY) 2016.

### EHS Releases by Substance and Quantity:

The following table is a breakdown of the reported EHS released over CY2016.

CY2016 EHS Releases by Substance and Quantity			
Extremely Hazardous Substance (EHS)	Number of Releases	Quantity (lbs)	% of releases (by weight)
Hydrochloric Acid	3	5628.00	47.090
Sulfur (Dioxide)	2	3338.00	27.929
Ammonia (Anhydrous)	80	2872.61	24.035
Nitric Acid (>40% Solution)	1	104.00	0.870
Chlorine	1	5.00	0.042
Sulfuric Acid	1	4.00	0.033
Hydrazine (Anhydrous)	1	0.07	0.001
<b>Total</b>	<b>89</b>	<b>11951.61</b>	<b>100</b>

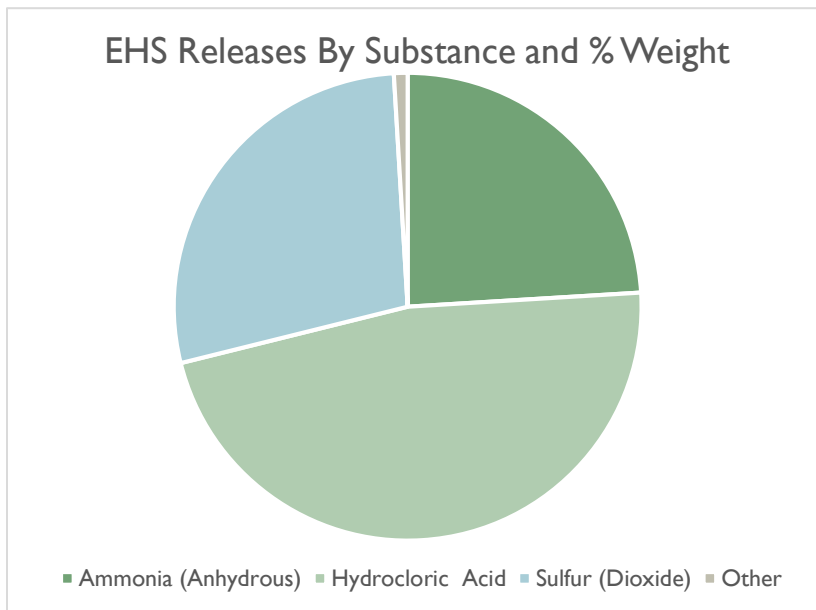
To ensure consistency, the total volume released was converted to pounds, using a general factor of 1 gallon = 8 pounds.

By comparison, in CY2015 there were 36 EHS releases. Anhydrous Ammonia accounted for 78% of the total number of releases, followed by Sulfuric Acid (14%), and Hydrochloric Acid (13%). There was one reportable release of Formaldehyde. No other releases of EHS Chemicals were reported during the 2015 calendar year.

### Significant EHS Releases:

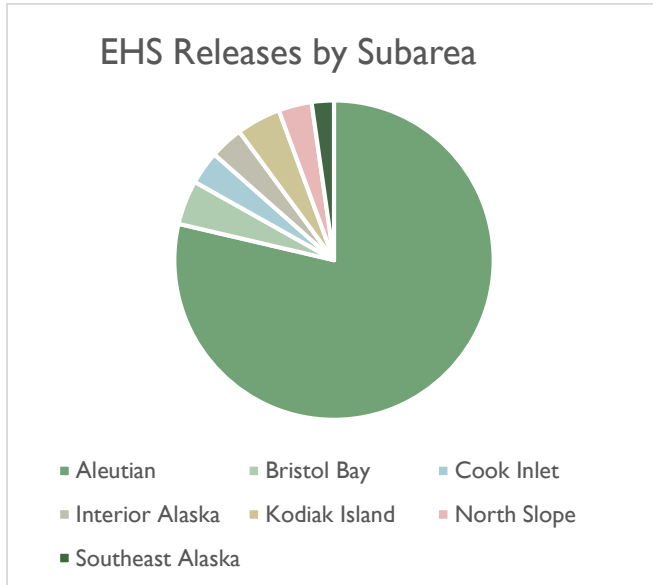
Significant EHS releases for CY 2016 were as follows:

- 5496 pounds of Hydrochloric Acid  
(January 8, 2016 – Richardson Hwy)
- 2000 pounds of ammonia (anhydrous)  
(April 15, 2016 – Ketchikan)
- 2807 pounds of sulfur (dioxide)  
(May 30, 2016 – Nikiski)



### EHS Releases by Location:

During CY 2016 the Aleutians (79%) accounted for nearly 4/5 of the total number of releases throughout the State. Bristol Bay (4.5%), Kodiak (4.5%), Cook Inlet (3.3%), Interior Alaska (3.3%), North Slope (3.3%), and Southeast Alaska (2.1%) all had multiple releases. The Northwest Arctic, Western Alaska, and the Prince William Sound subareas did not report any EHS releases for CY 2016.



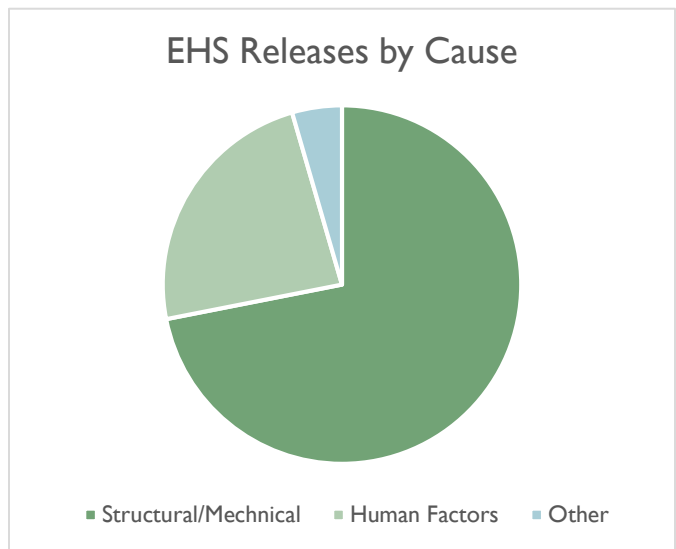
EHS Releases by Subarea	Number of Releases
Aleutian	70
Bristol Bay	4
Cook Inlet	3
Interior Alaska	3
Kodiak Island	4
North Slope	3
Southeast Alaska	2
<b>Total</b>	<b>89</b>

In comparison during CY2015, the Aleutians (36%) and Kodiak (28%) accounted for nearly 2/3 of the total number of releases throughout the State, while North Slope (11%), Southeast (11%), and Prince William Sound (5%) also had multiple releases. The Cook Inlet, Bristol Bay, and Interior subareas each reported a single release, while the Northwest Arctic and Western Alaska subareas did not report any EHS releases for CY 2015.

### EHS Releases by Cause:

Analysis of the State's SPILLS database, which tracks these releases shows "Structural/Mechanical" (71%), "Human Factors" (23%), and "Other" (5%) were the primary causes for the EHS releases in the State Alaska for CY 2016. Examples of "Structural/Mechanical" causes include equipment failure, valve failure, and seal failure.

EHS Releases by Subarea	Number of Releases
Structural/Mechanical	64
Human Factors	21
Other	4
<b>Total</b>	<b>89</b>



By comparison in CY 2015, "Structural/Mechanical" (78%), "Human Factors" (17%), and "Other" (5%) were the primary causes for the EHS releases.