

# OREGON STATE FIRE MARSHAL 2023 CR2K ANNUAL SUMMARY

October 2024



#### **MISSION**

Protect people, property, and the environment from fire and hazardous materials.

#### VALUES

### Integrity

We believe in being honest, fair, and doing the right thing in everything we do.

#### Dedication

We are committed to performing our work the best we can in support of our mission, customers, stakeholders, public, and each other.

### Leadership

We are committed to be a leader in the Oregon fire service, lead our organization, and lead ourselves as individuals in our day-to-day work.

#### Partnership

We believe our success and the success of others depends on collaboration with our stakeholders.

### **Service to Others**

We believe that serving others is a cornerstone of our mission, our dayto-day work, and is all inclusive.

> Statutory Authority Oregon Revised Statute: Chapter 453







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# COMMUNITY RIGHT TO KNOW

## **EXECUTIVE SUMMARY**

The Oregon Community Right to Know and Protection Act (ORS 453.307 to ORS 453.520) requires employers in Oregon that possess certain quantities of hazardous substances to submit an annual report to the Oregon State Fire Marshal's Office, Community Right to Know (CR2K) program. This law also requires emergency responders to report to OSFM incidents involving the release, or threatened release, of hazardous substances.

A hazardous substance is defined as a substance for which the Oregon Occupational Safety and Health Administration (OR OSHA) requires the manufacturer to develop a Safety Data Sheet.

The reportable quantity thresholds for most substances are:

- 500 pounds of a solid
- 500 gallons of a liquid
- 500 cubic feet of a vaporous gas
- 500 gallons of a liquefied or cryogenic gas

For highly toxic substances or explosives, the thresholds are:

- 5 gallons of a liquid
- 10 pounds of a solid
- 20 cubic feet of gas

Extremely hazardous substances (EHS) designated by the Environmental Protection Agency are reportable at the specific threshold planning quantity established for each substance. Radioactive substances that are not within a sealed source are reportable at any quantity (OAR 837-085-0070 (2) (a)).

The reportable quantity threshold for gasoline and diesel in underground storage tanks at retail gasoline service stations is 75,000 gallons and 100,000 gallons respectively.

The reports, which are submitted in the online reporting system CHS Manager, are frequently reviewed, and validated. Types of validation include contacting facilities for clarification of submitted data, reviewing quality control queries, and conducting in-person and phone audits to confirm and assist with compliance. A hazardous substance information hotline and an online help desk are available to facilities for assistance with submitting their information.

The public has access to information reported by facilities and are also able to obtain information about hazardous substance incidents. Fire agencies, hazardous material response teams, law enforcement, emergency planners, health officials, and local and state agencies also have access to this information. The data helps these partners make informed decisions when taking steps to protect life, property, and the environment from a hazardous materials incident. For more information, please visit our CR2K website or call the Hazardous Substance Information Hotline at 503-378-6835 or 1-800-454-6125. To request or obtain hazardous substance information collected by CR2K, please visit <u>https://www.oregon.gov/osfm/industry/Pages/CR2K.aspx</u> or e-mail <u>OSFM.CR2K@osfm.oregon.gov</u>.







## **HAZARDOUS SUBSTANCE STORAGE – FACILITIES REPORTING**

## Reporting Frequency by North American Industry Classification System (NAICS) Code

This table lists the top ten specific industry classifications with the most facilities reporting in 2023.

NAICS	Description	Facility Count
517112	Wireless telecommunications carriers (except satellite)	2,971
921190	Other general government support	793
221122	Electric power distribution	482
424710	Petroleum bulk stations and terminals	321
441330	Automotive parts and accessories retailers	272
611110	Elementary and secondary schools	262
811111	General automotive repair	232
457110	Gasoline stations with convenience stores	211
221310	Water supply and irrigation systems	196
517111	Wired telecommunications carriers	184



# HAZARDOUS SUBSTANCE STORAGE – HAZARD CLASS REPORTING FREQUENCY

Facilities reporting substances to CR2K must also report the physical and health hazards associated with the substance. The hazards used for reporting are those adopted by the U.S. Environmental Protection Agency (EPA) from the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) (29 CFR 1910.1200). Several custom codes used only by the Oregon Community Right to Know program are also used. Facilities must identify all applicable hazards utilizing the substance's safety data sheet (SDS). Many substances have multiple hazards. This table shows how many times each hazard was reported for the 2023 reporting period.



Hazard	Number of Times Reported
Serious Eye Damage or Eye Irritation	23,724
Skin corrosion or irritation	22,742
Acute Toxicity	15,005
Respiratory or Skin Sensitization	13,892
Flammable	13,872
Specific Target Organ Toxicity	11,077
Carcinogenicity	10,780
Gas under Pressure	9,525
Aspiration Hazard	7,292
Reproductive Toxicity	7,203
Corrosive to Metal	6,724
Explosive	6,369
Health - Hazard Not Otherwise Classified	4,920
Physical - Hazard Not Otherwise Classified	4,877
Simple Asphyxiant	4,264
Germ cell Mutagenicity	2,950
Oxidizer	2,374
Combustible Dust	1,358
Poisonous Material	995
Poisonous Gas	686
In contact with water emits flammable gas	268
Radioactive	244
Fire Hazard	200
Immediate Hazard	156
Delayed Hazard	134
Pyrophoric (Liquid or Solid)	110
Sudden Release of Pressure	103
Self-reactive	82
Pyrophoric Gas	79
Infectious or Etiologic (Biological Hazard)	74
Organic Peroxide	71
Self-heating	55
Reactive	53

The following table shows the number of facilities in each county that are reporting an extremely hazardous substance (EHS) at or above the Threshold Planning Quantity.

County	Count of Facility ID
Multnomah	684
Washington	309
Marion	186
Clackamas	178
Lane	140
Linn	121
Deschutes	100
Umatilla	92
Jackson	91
Morrow	53
Yamhill	45
Klamath	43
Clatsop	42
Hood River	41
Douglas	38
Malheur	35
Lincoln	28
Benton	28
Coos	28
Polk	26
Wasco	22
Columbia	19
Gilliam	18
Jefferson	16
Baker	16
Josephine	16
Tillamook	15
Union	13
Crook	12
Lake	12
Curry	10
Sherman	9
Wallowa	8
Grant	6
Harney	5
Wheeler	2
Total	2 507

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The charts below show the top ten counties and cities with the most reporting facilities.





## SUBSTANCES REPORTED

The ten most frequently reported substances in 2023 based on the number of times reported.



The five most frequently reported pure extremely hazardous substances.



Pure extremely hazardous substances (EHS) reported over 100k units.



One facility reported *mixtures* containing an EHS in quantities over 100k (AFCO 0221 50% Sulfuric Acid).





The table below shows the mixtures that were reported in quantities exceeding one million pounds, gallons, or cubic feet along with the number of times each was reported. Facility counts are based upon the chemical name as reported by the facility. The chart may contain duplicates because of the use of a different name for the same substance.

Chemical Name	Count of Facility ID
Lead Acid Batteries	16
Fertilizer Urea	11
Fertilizer 46-0-0	10
Gasoline	8
Wood Dust	7
Fertilizer 0-0-60 Potash	7
Fertilizer 11-52-0	5
Portland Cement	5
Lead Acid Batteries-Dry	4
Fertilizer 21-0-0 Ammonium Sulfate	4
Diesel Fuel	4
Diesel	4
Fertilizer 21-0-0 Plus 24(S) Ammonium Sulfate Jr Simplot Company	4
Black Liquor Georgia-Pacific	3
Limestone Aggregate, Ag Lime; Calcium Carbonate / Acg Materials	3
Fertilizer 20.5-0-0 Sulfate Plus, Compacted, Ammonium Sulfate Agrium Wholesale Us Inc	3
Denatured Ethanol	3
Green Liquor Cascade Pacific Pulp	3
Diesel Fuel 2 Low Sulfur	3
Peat Moss	3
Fertilizer Muriate Of Potash	3
Fertilizer 20-0-0-24 Ammonium Sulfate Wilco-Winfield Llc	3
Asphalt Liquid	3
Natural Gas	2
Asphalt	2
Pvc Suspension Resin	2
Lithium Ion Batteries	2
Denatured Alcohol	2
Fertilizer Muriate Of Potash Mosaic	2
Medium Density Fiberboard Arauco North America	2
Fertilizer Microessentials Sz The Mosaic Company	2
White Liquor	2

Wood And Wood Dust (Without Chemical Treatments Or Resins/Additives) Including Logs, Chips And Sawdust Weyerhaeuser	2
Ground Limestone (Agricultural Lime) Ash Grove Cement Company	2
Gypsum Wallboard Panels (Aquabloc, Classicroc, Classicroc Laminate, Exterior Soffit, Exterior Sheathing, Firebloc 45, Type C & Type X, Interior Ceiling, Lightroc, M-Bloc) American Gypsum Company Llc	2
Fertilizer 0-0-60 Muriate Of Potash	2
Alcohol Denatured Fuel Grade (Ncp)	2
Sugar	2
Fertilizer 16-20-0 With 13% Sulfur Agropell By Simplot Ammonium Phosphate Jr Simplot Company	2
Paper Products For Corrugated Packaging, Folding Cartons Georgia-Pacific Llc	2
Biodiesel B100	2
Brown Sugar (Light And Dark)	2
Titanium Base Alloys Ati Company	2
Biodiesel B5	2
Asphalt Cement	2
Scrap Lead Alloy	2
Steel Alloys	2
Sand	2
Fertilizer 0-0-62 Muriate Of Potash	1
Fertilizer 0-45-0 Triple Superphosphate Jr Simplot	1
Fertilizer 20.5-0-0-24 With 24% Sulphur Teck Metals Ltd	1
Fertilizer 11-37-0 Ammonium Polyphosphate Jr Simplot	1
Fertilizer 16-20-0 Mono-Ammonium Phosphate Sulfate Jr Simplot Company	1
Fertilizer 21-0-0-24	1
Fertilizer 15.5-0-0 Calcium Nitrate Viking Ship Norsk Hydro Asa C/O Hydro Agri North America Inc	1
Fertilizer 16-16-16 Wilco-Winfield Fertilizers	1
Fertilizer 16-20-0 Ammonium Phosphate Sulfate	1
Fertilizer 43-0-0, 44-0-0, 39-0-0, 40-0-0, 41-0-0 Duration Cr Urea Koch Agronomic Services	1
Fertilizer 32-0-0 Simplot Uan-32 Urea Ammonium Nitrate Solution	1
Fertilizer 20.5-0-0, 24S Ammonium Sulfate Loveland Products Inc	1
Bnz Aggregates 2337, 2648, 2653, 2855, 2861, 3065, 3275 / Bnz Materials Inc	1
3M Brand Roofing Granules - 5100L, 5300L & 5500L	1
6-4 Ti Welding Wire And Rod United States Welding Corp	1
Activated Alumina	1
Aged Bark Mulch	1
Ammonia 5%/Nitrogen 95%	1
Asphalt Crack Filler	1
Aviation Gasoline	1
Bakken Crude Oil Feedstock Tesoro Refining & Marketing Co	1
Barley Products (Whole, Crimped, Rolled, Earled, Ground) Hansen Mueller Co	1
Base Oils	1
Biodiesel	1

Biodiesel B99	1
Diesel Bio Blend No 2	1
Black Liquor (Kraft) International Paper	1
Fertilizer 0-0-60 Or 0-0-62 Muriate Of Potash Agrium North American Wholesale	1
Cement	1
Cherry Brine Oregon Cherry Growers	1
Diatomaceous Earth	1
Fly Ash Class C	1
Diesel 2	1
Fertilizer 46-0-0 Perfection Urea Wilbur Ellis Company Llc	1
Diesel Fuel #2, On-Road (Low Sulfur) Gulf Oil Limited Partnership	1
Diesel Fuel 2	1
Diesel Fuel 2 Ultra Low Sulfur	1
Diesel Fuel With 5% Biodiesel	1
Dolomite	1
Ethanol	1
Fertilizer 0-0-21 K-Mag Wilco-Winfield Llc	1
Biogas Shell Trading (Us) Company	1
Organic Base Blend	1
Limestone Pelletized	1
Scrap Metal - Recycle	1
Rubinate 1840	1
Rea Tin Or Rt 6611 Reagens Usa, Inc	1
Rail Loaded Dilbit Crude Oil Meg Energy	1
Silica Sand	1
Pentachlorophenol Pressure Treated Wood Stella-Jones Corporation	1
Sodium Chlorate Crystal, Chlorate Of Soda (Synonym), Technical Sodium Chlorate (Solid), Ercocide Cp (Solid), Ercocide C, Ercocide Cp Erco Worldwide	1
Niobium Base Alloys	1
Natural Gas Nw Natural	1
Magnesium Chloride	1
Lpe Pf Wash Water Hexion Inc	1
Liquor White	1
Fertilizer Urea - Ammonium Nitrate Solution Dyno Nobel Inc	1
Quicklime	1
Titanium Sponge (Wrought Products) Osaka Titanium Technologies Co	1
Weakwash (International Paper)	1
Waste Water Tmt Sludge	1
Waste Calcium Fluoride Filter Cake	1
Used Oil	1
Ultrpole Nxt Pressure Treated Wood With Up-50 Ultrapole Nxt Viance Llc	1
Scrap Metal-Recycle Titanium-Pcc	1
Transmix Refinery Stream Bend Stock Phillips 66 Company	1
Limestone (Agricultural)	1
Titanium Ingots	1

Titanium Alloy Ati	1
Tesoro Diesel Low Sulfur (Lsd) And Ultra Low Sulfur Diesel (Ulsd)	1
Telone li Soil Fumigant Dow Agrosciences	1
Soybean Meal Bunge North America	1
Soy Sauce Yamasa Corporation U.S.A.	1
Ufala Harbisonwalker International	1
3M 7000 Series Copper Grnules For Roofing Shingles 3M Industrial Mineral Products	1
Liquor Black Weak	1
Granular Trio	1
Grain Dust	1
Garden Compost	1
Ft Wax (Dp-60, Dp-70, Do-95, Dp-100, Do-110) Hot-Melt Adhesives, Coatings, Inks, Pvc Ge Chaplin Inc Dynamic Polymers	1
Green Liquor	1
Fertilizer Urea 46-0-0	1
Green Liquor Georgia-Pacific Llc	1
Fertilizer Uran 32-0-0	1
Fertilizer Un-32/Ns-1	1
Fertilizer Superu Stabilized Nitrogen	1
Fertilizer Sulfate Of Potash	1
Fertilizer Scu (All Grades) Koch Agronomic Services Llc	1
Fertilizer Monoammonium Phosphate	1
Foul Condensate Industrial Process By-Product Of Kraft Pulping Georgia-Pacific Llc	1
Icekicker High Performance Road Salt Saltworx Llc	1
Lime-Calcium Carbonate	1
Lime; Calcium Oxide; Unslaked Lime; Burnt Lime; Quick Lime; Reburnt Lime / International Paper	1
Lilly Miller Moss Out! Lawn Granules / Lilly Miller Brands	1
Kingsford Original Charcoal Briquets / The Clorox Company	1
Kingsford Match Light Instant Charcoal Briquets / The Clorox Company	1
Graphite	1
Jet A Fuel	1
Fertilizer Ammonium Phosphate	1
Hv 13	1
High Iron (Fe) Iron Sand Oregon Resources Corporation	1
High Density Polyethylene - Grades Designed By Hd Or Hdp Prefix / Exxonmobil Chemical Company	1
Gypsum Rock No.4 Crushed United States Gypsum Company	1
Gur Plastic Processing Indutry Ticona Polymer Inc	1
Green Waste	1
Jet A Modified Fuel	1
Total	275

# HAZARDOUS CONDITION INCIDENTS

## **INCIDENT TYPE COUNTS**

Under the Oregon Community Right to Know and Protection Act, those who responded to an incident involving hazardous conditions must report information about the incident to OSFM. OSFM currently provides responders with an online incident reporting system.

Fire agencies and state hazmat teams reported **2,688** hazardous condition incidents in 2023. These incidents resulted in three civilian casualties, including two deaths, and no fire service casualties.

This section represents several snapshot views of hazardous condition incidents in Oregon. More information can be requested from our website at: https://www.oregon.gov/osfm/industry/Pages/hazmat-incident-search.aspx

Incident reporters categorize hazardous condition incidents into one of several categories. These categories describe general types of responses to incidents.



## 2023 Hazardous Substance Incident Types

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The cities listed on the graph below are based upon the zip code of the address at which the incident occurred and may not necessarily be within the corporate limits.





Top Ten Property Uses with the Most Reported Hazardous Condition Incidents





The hazard class of substances involved was not always recorded in responder reports. Of the **2,688** reported incidents, only **27** had a value entered for the hazard class.



Hazard Class Count

Several options are given for causes of a hazardous condition incident. Not all reports list the cause of an incident. The following chart represents the **64** incidents for which a definitive cause was determined.



## **Causes of Hazardous Condition Incidents**

There were 64 hazardous condition incidents that included contributing factors.



## Factors Contributing to Hazardous Condition Incidents

## **Hazardous Condition Incident Evacuation Summary**

