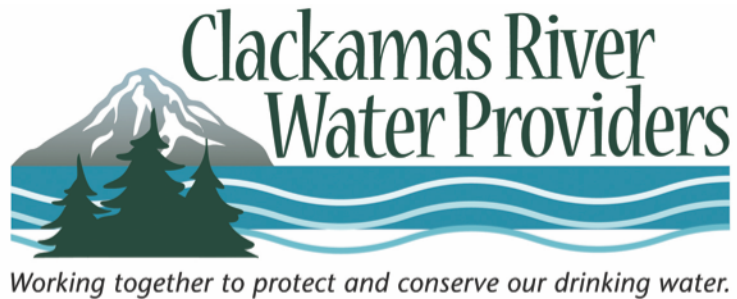


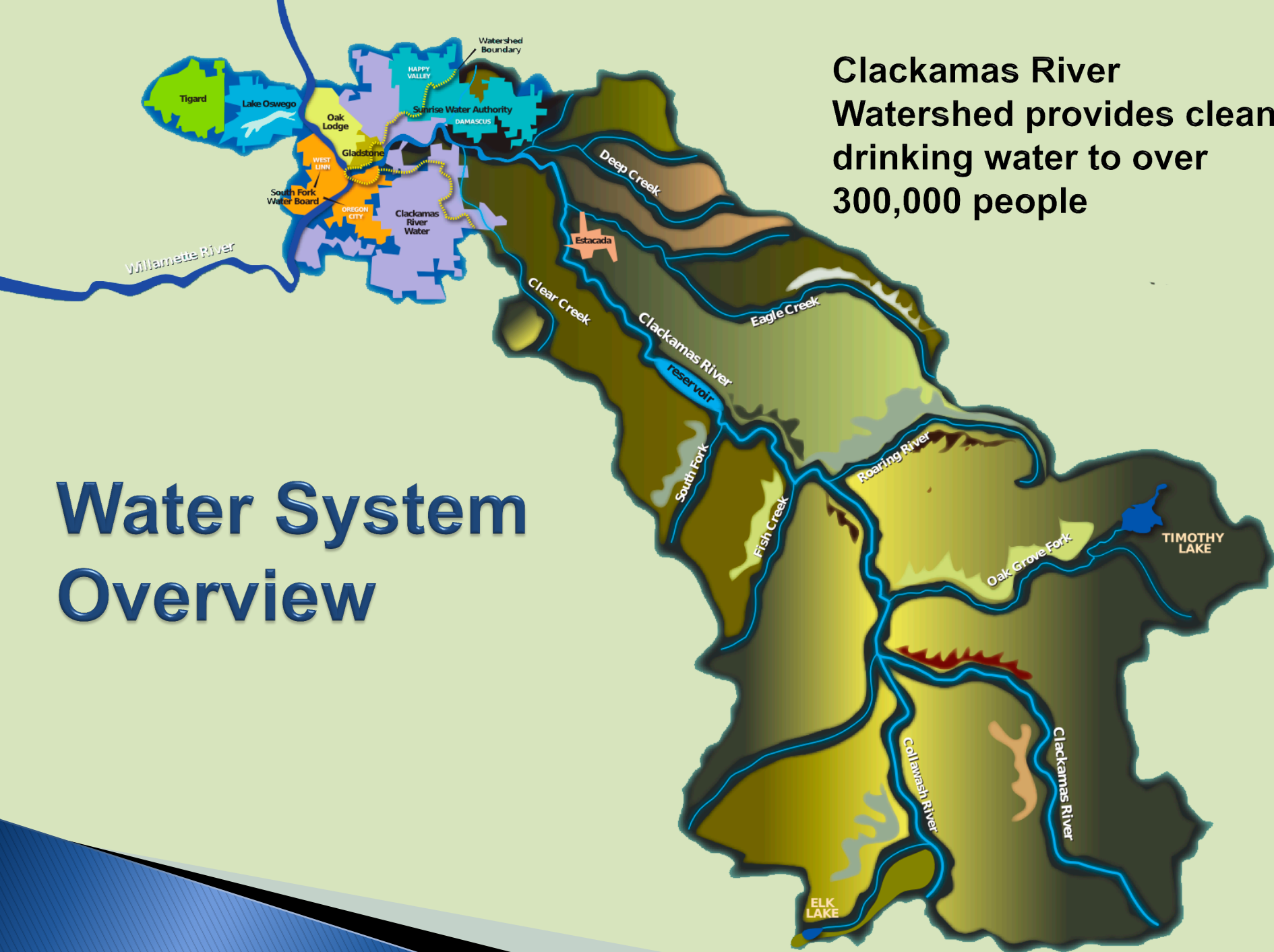
Hazardous Material Spill/ Drinking Water Source Protection Program

Employee/Staff Training



Water System Overview

Clackamas River Watershed provides clean drinking water to over 300,000 people



Who gets their drinking water from the Clackamas River



Drinking Water Protection Area

- ▶ Is an area defined by DEQ as the watershed (*land around rivers, lakes, and streams*) or recharge area that supplies a well or drinking water intakes.
- ▶ Activities in this area have the ability to impact downstream municipal water users.

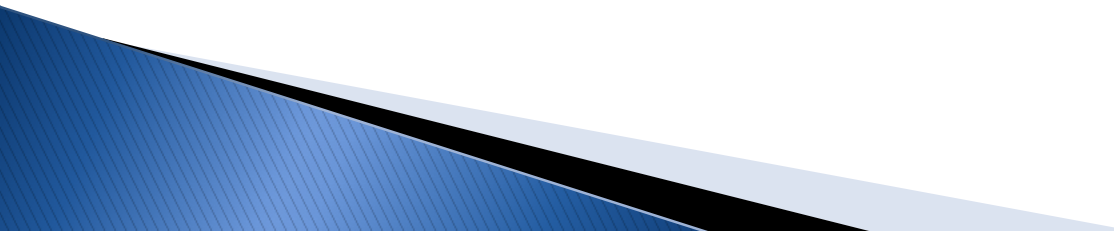


Potential Threats to Drinking Water from Hazardous Materials

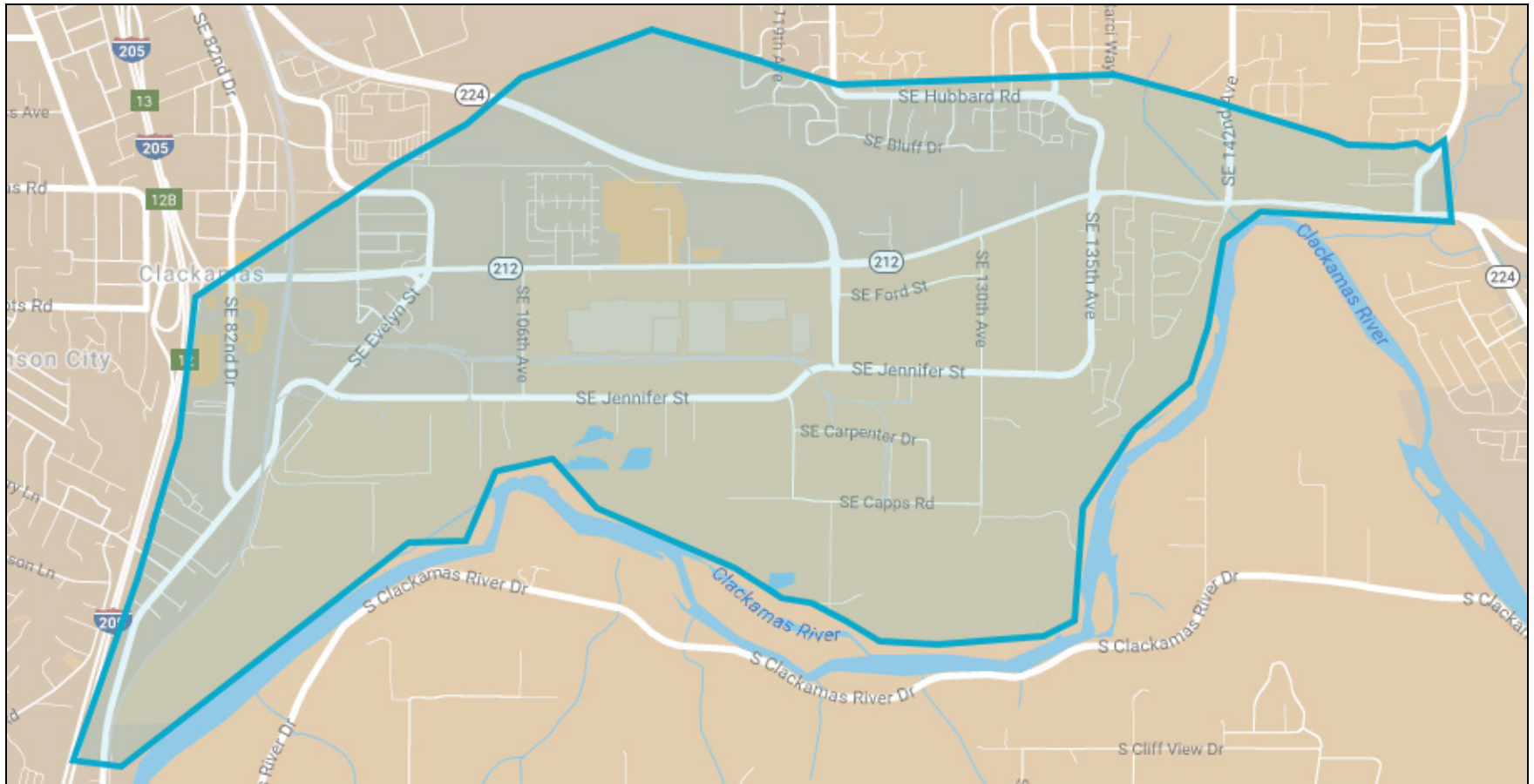
- ▶ **Spills** of industrial hazardous chemicals
- ▶ **Poor containment** of chemicals
- ▶ **Improper application** or disposal of chemicals



Training Overview

- ▶ Business located within the drinking water protection area
 - ▶ Location of Safety Data Sheets (SDS)
 - ▶ How to read an SDS
 - ▶ Who to contact for spill response
 - ▶ Training for spill control and response personnel
 - ▶ Review reports and procedures
- 

Lower Clackamas River Drinking Water Protection Area



Regulated Chemical Thresholds

EPA 'List-of-Lists' Hazardous Substances

- ▶ Halogenated Solvents – **10 gal.**
- ▶ DEQ Hazardous Wastes – **30 gal.**
- ▶ EPA's 'List-of-Lists' Substances – **50 gal.**
- ▶ Petroleum-Based Liquid Fuels – **50 gal.**
(reporting only for non-fuel petroleum)

Safety Data Sheets (SDS)

Formerly MSDS



Location of SDS



SAFETY DATA SHEET

1. Identification

Product Identifier	Brakleen® Brake Parts Cleaner		
Other means of identification			
Product code	05089, 05089T, 85089, 85089AZ		
Recommended use	Brake cleaner		
Recommended restrictions	None known.		
Manufacturer/Importer/Supplier/Distributor information			
Manufactured or sold by:			
Company name	CRC Industries, Inc.		
Address	885 Louis Dr. Warminster, PA 18974 US		
Telephone			
General Information	215-674-4300		
Technical Assistance	800-521-3168		
Customer Service	800-272-4620		
24-Hour Emergency (CHEMTREC)	800-424-9300 (US) 703-527-3887 (International)		
Website	www.crcindustries.com		

2. Hazard(s) identification

Physical hazards	Gases under pressure	Compressed gas
Health hazards	Skin corrosion/irritation Carcinogenicity Specific target organ toxicity, single exposure	Category 2 Category 1B Category 3 narcotic effects
Environmental hazards	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	
Label elements		



Signal word

Danger

Hazard statement

Contains gas under pressure; may explode if heated. Causes skin irritation. May cause drowsiness or dizziness. May cause cancer. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 49°C/120°F. Use with adequate ventilation. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist or vapor. Avoid breathing gas. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response

If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If exposed or concerned: Get medical attention. Collect spillage.

Storage

Store locked up. Protect from sunlight. Store in a well-ventilated place. Exposure to high temperature may cause can to burst.

Material name: Brakleen® Brake Parts Cleaner

05089, 05089T, 85089, 85089AZ

Version #: 03

Revision date: 10-29-2015

Issue date: 12-20-2013

SDS US
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How to Read an SDS

Safety Data Sheets (SDS)

Formerly MSDS

- ▶ Provide workers and emergency personnel with procedures for handling or working with that substance in a safe manner
- ▶ Includes physical data, toxicity, health effects, first aid and reactivity
- ▶ Includes storage, disposal, protective equipment, and spill-handling procedures

Product Name

*Recommended use,
manufacturer info.*

Hazards

*Physical, Health,
Environmental*

Signal Word

“Danger, Warning”



SAFETY DATA SHEET

1. Identification

Product identifier	Brakleen® Brake Parts Cleaner
Other means of identification	
Product code	05089, 05089T, 85089, 85089AZ
Recommended use	Brake cleaner
Recommended restrictions	None known.
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	Carcinogenicity	Category 1B
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements



Signal word Hazard statement

Danger
Contains gas under pressure; may explode if heated. Causes skin irritation. May cause drowsiness or dizziness. May cause cancer. Toxic to aquatic life with long lasting effects.

Precautionary statement Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 49°C/120°F. Use with adequate ventilation. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist or vapor. Avoid breathing gas. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response

If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If exposed or concerned: Get medical attention. Collect spillage.

Storage

Store locked up. Protect from sunlight. Store in a well-ventilated place. Exposure to high temperature may cause can to burst.

Ingredients
CAS, common name

First Aid

Fire Fighting

PPE & Cleanup

Disposal
Hazard(s) not otherwise classified (HNOC)

Dispose of contents/container in accordance with local/regional/national regulations.
None known.

Supplemental information

When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Tetrachloroethylene	Perchloroethylene	127-18-4	90 - 100
Carbon dioxide		124-38-9	1 - 5

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.

Most important symptoms/effects, acute and delayed

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes and mucous membranes. Irritation of nose and throat. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Dry chemical, CO₂, or water spray.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Contents under pressure. Exposure to high temperature may cause can to burst. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire fighting equipment/instructions

In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Avoid breathing gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Collect spillage. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

Material name: Brakleen® Brake Parts Cleaner

05089, 05089T, 85089, 85089AZ Version #: 03 Revision date: 10-29-2015 Issue date: 12-20-2013

SDS US

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SDS Oregon OSHA Fact Sheet

<http://osha.oregon.gov/OSHAPubs/factsheets/fs27.pdf>



What are safety data sheets?

General Industry
Subdivision 2/Z
1910.1200

Agriculture
Subdivision 4/Z
437-004-9800

Oregon OSHA
A Division of the
Department of Consumer
and Business Services

www.orsosha.org

Salem Central Office
350 Winter St. NE, Rm. 430
Salem, OR 97301-3882

Phone: 503-378-3272
Toll-free: 800-922-2689
Fax: 503-947-7461

Safety data sheets (SDS) are detailed information bulletins prepared by the manufacturer or importer of a chemical that describes the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first-aid procedures, and control measures. Information on safety data sheets aid in the selection of safe products and helps prepare employers and employees to respond effectively to daily exposure situations as well as to emergency situations.

Employer responsibilities
Employers must ensure that each employee has a basic knowledge of how to find information on safety data sheets and how to properly make use of that information. Employers also must ensure the following is provided:

- Complete and accurate safety data sheets during each work shift.
- Information for each hazardous chemical.
- Training on safety data sheets.

Employee rights
• Your workplace is required to have safety data sheets available for every hazardous chemical or substance you use or encounter as a part of your job.- Safety data sheets must be readily available for you to review at any time when you are in the workplace. In other words, they cannot be locked in an office or filing cabinet where you do not have access.
- If you request to see a safety data sheet for a product you use at work, your employer must provide it. If you do not know where the safety data sheets for your area kept – find out!

When are safety data sheets required?
Oregon OSHA looks at the usage of materials in a workplace in two ways: consumer usage and occupational usage.

- Consumer usage is when you use the product in a similar manner and frequency as you would use the product in your home or garage (consumer products used in a consumer fashion).
- Occupational usage occurs when employees use a chemical to accomplish the duties of their job, either more frequently or in greater quantity than what a consumer would use. Or when the product is used in a manner for which it was not originally designed.

For example:

- 1) If employees use Windex to periodically clean a computer monitor in their work area and that container lasts several months, you probably do not need a safety data sheet.
- 2) If housekeeping employees use Windex on a daily or even weekly basis, you most likely will need a safety data sheet and must train your employees on its contents.
- 3) If employees use Windex to clean auto parts instead of windows, you would need to train employees on the safety data sheet information.

What are safety data sheets? – continued

Where do employers get safety data sheets?

Chemical manufacturers, importers, and distributors must provide safety data sheets assessing the hazards of chemicals with the first shipment of any hazardous chemical they provide to a user or upon request. Safety data sheets may also be obtained from retailers that sell the materials or from the Internet.

How are safety data sheets used?

Employers use safety data sheets for training and to provide accurate information to employees who are exposed to hazardous chemicals. Employees must be trained on the physical and health hazards of the chemicals in the workplace, the recommended measures to use products safely, and recommended emergency procedures for cleaning up a spill or release of chemicals.



What information is required on safety data sheets?

Safety data sheets must contain the following information:

- Identification includes product identifier; manufacturer or distributor name, address, and phone number; emergency phone number; recommended use; and restrictions on use.
- Hazard identification includes all hazards regarding the chemical and required label elements.
- Composition and information on ingredients includes information on chemical ingredients and trade secret claims.
- First-aid measures include important symptoms or effects (acute or delayed) and required treatment.
- Fire-fighting measures include suitable extinguishing techniques and equipment, as well as chemical hazards from fire.

- Accidental release measures include emergency procedures, protective equipment, and proper methods of containment and cleanup.
- Handling and storage includes precautions for safe handling and storage, including incompatibilities.
- Exposure controls and personal protection includes OSHA's permissible exposure limits (PELs), ACGIH threshold limit values (TLVs), and any other exposure limit used by the chemical manufacturer, importer, or employer preparing the SDS. It also includes appropriate engineering controls; personal protective equipment (PPE).
- Physical and chemical properties include the chemical's characteristics.
- Stability and reactivity include chemical stability and possibility of hazardous reactions.

- Toxicological information includes routes of exposure, related symptoms (acute and chronic effects), and numerical measures of toxicity.
 - Ecological information*
 - Disposal considerations*
 - Transport information*
 - Regulatory information*
 - Other information includes the date of preparation or last revision.
- *Note: Since other agencies regulate this information, OSHA does not enforce Sections 12 through 15 [See 1910.1200(g)(2)].*

Globally Harmonized System Pictograms

 <p>Health Hazard</p> <ul style="list-style-type: none">• Carcinogen• Mutagenicity• Reproductive Toxicity• Respiratory Sensitizer• Target Organ Toxicity• Aspiration Toxicity	 <p>Exclamation Mark</p> <ul style="list-style-type: none">• Irritant (skin and eye)• Skin Sensitizer• Acute Toxicity• Narcotic Effects• Respiratory Tract Irritant• Hazardous to Ozone Layer (non-mandatory)	 <p>Flame</p> <ul style="list-style-type: none">• Flammables• Pyrophorics• Self-Heating• Emits Flammable Gas• Self-Reactives• Organic Peroxides
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CR-OSHA (Rev 3/16) FS-27

The Standards and Technical Resources Section of Oregon OSHA produced this fact sheet to highlight our programs, policies, or standards. The information is from the field staff, research by the technical resources staff, and published materials. We urge readers to consult the actual rules as this fact sheet information is not as detailed.

Oregon OSHA
A Division of the
Department of Consumer
and Business Services

Contacts for Spill Response (Example)

Examples of spill response contractors

- Bravo Environmental NW, Inc.
- Clean Harbors Environmental
- Terra Hydr, Inc
- NWFF Environmental
- Clearwater Enviro Services
- NRC

ON-SITE EMERGENCY CONTACT

NAME:

TITLE:

PHONE:

EMAIL:

NOTES:

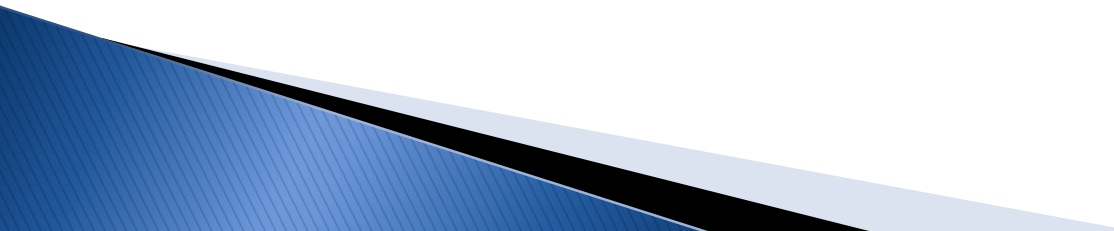
SPILL RESPONSE CONTRACTOR:

Spill Response Team Training

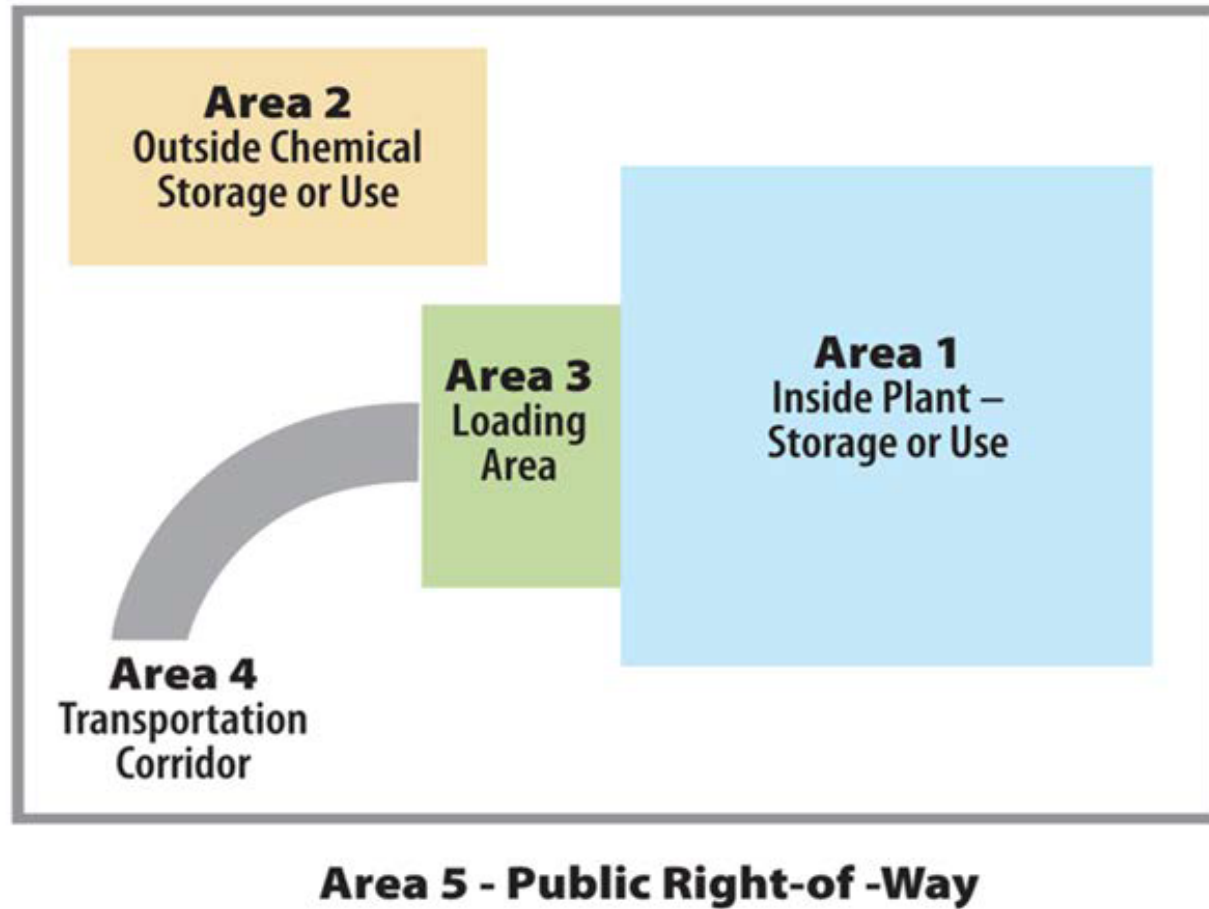
- ▶ Site Map
- ▶ Facility Risk Assessment
- ▶ Fuel and Hazardous Materials Inventory
- ▶ Spill Response Personnel
- ▶ Spill Response Procedure



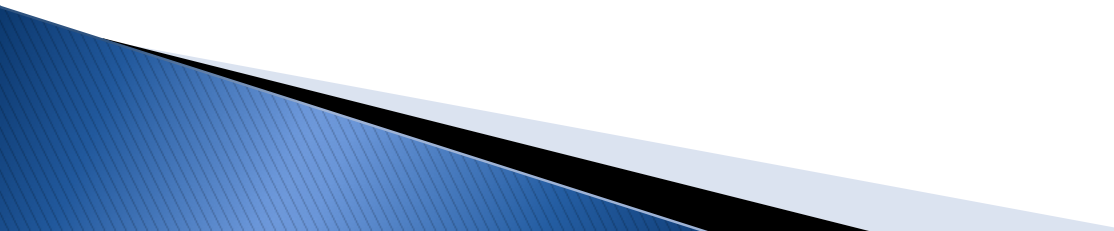
Facility Information

- ▶ Functional areas where hazardous materials are stored or used
 - ▶ Transportation routes
 - ▶ Storm drains and drainage area
 - ▶ Dry wells or sumps
 - ▶ Spill containment devices (e.g. shut off valve)
 - ▶ Emergency spill containment and clean-up kits
- 

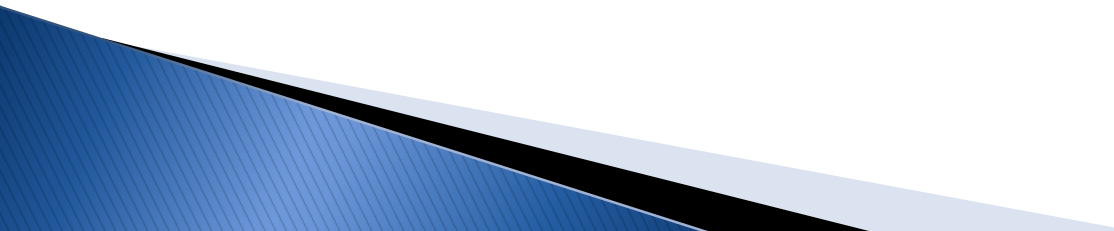
Functional Areas



Area 1 – Indoor Storage

- ▶ Meet Oregon Fire Code spill control and containment requirements
 - ▶ Impermeable surfaces required
 - ▶ Floor drains connected to sewer or plugged
- 

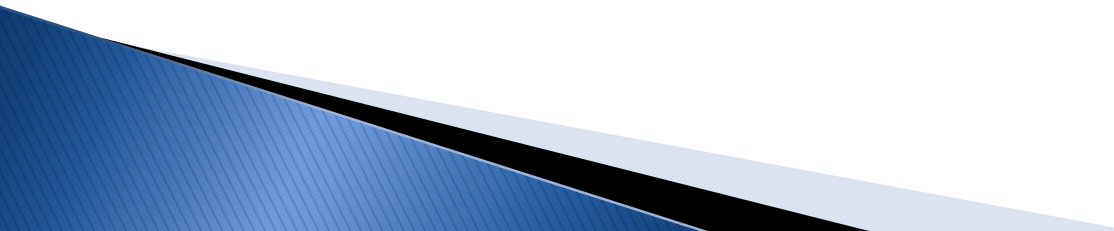
Area 2 – Outdoor Storage

- ▶ Impervious area
 - ▶ Covered
 - ▶ Secondary containment
- 

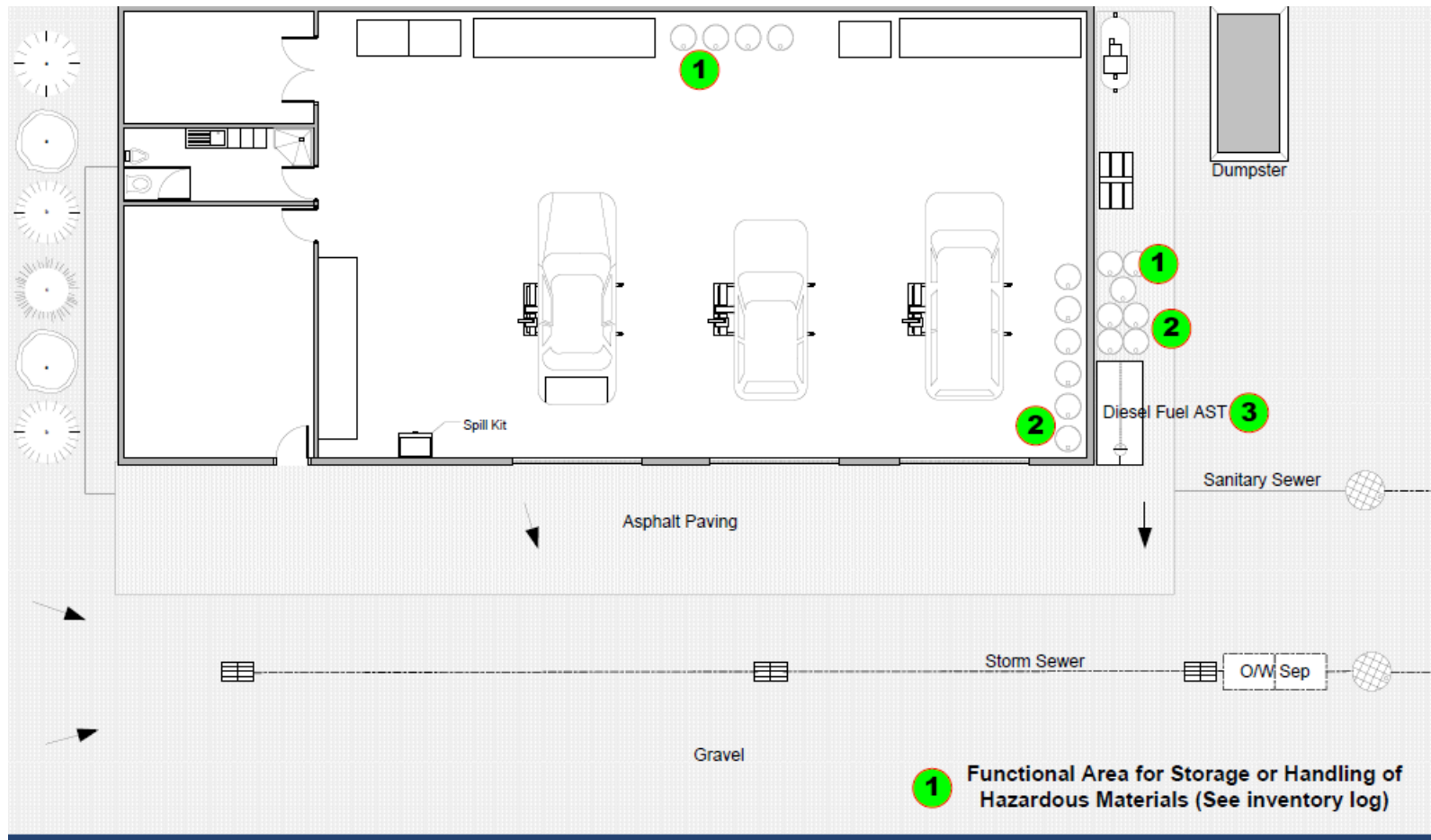
Area 3 - Loading/Unloading

- ▶ Impervious area with spill containment & response
- ▶ Covered or contained to prevent stormwater runoff

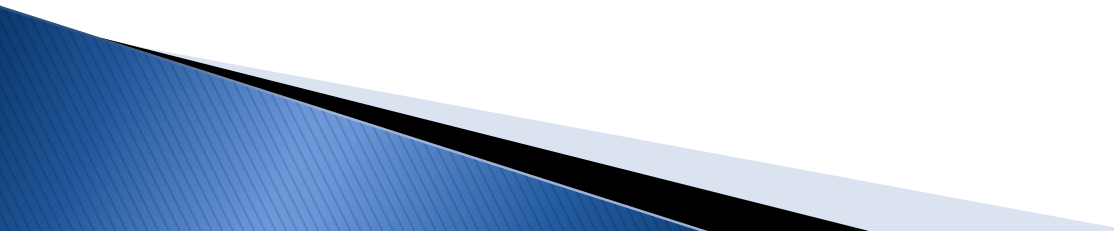
Area 4 - Site Transportation Routes

- ▶ Routes must be paved (except rail)
 - ▶ Must provide spill containment
 - ▶ Facilities may satisfy requirement by transporting hazardous materials in secondary containment
- 

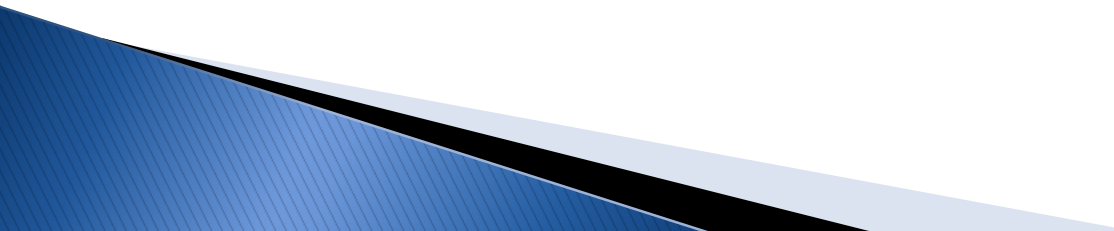
Example of Site Map



Site Risk Assessment

- ▶ Low, moderate or high
 - ▶ Varies by chemical and quantity
 - ▶ Storage method
 - ▶ Transportation
 - ▶ Intra-site and on/off-site
 - ▶ Points of likely spillage
- 

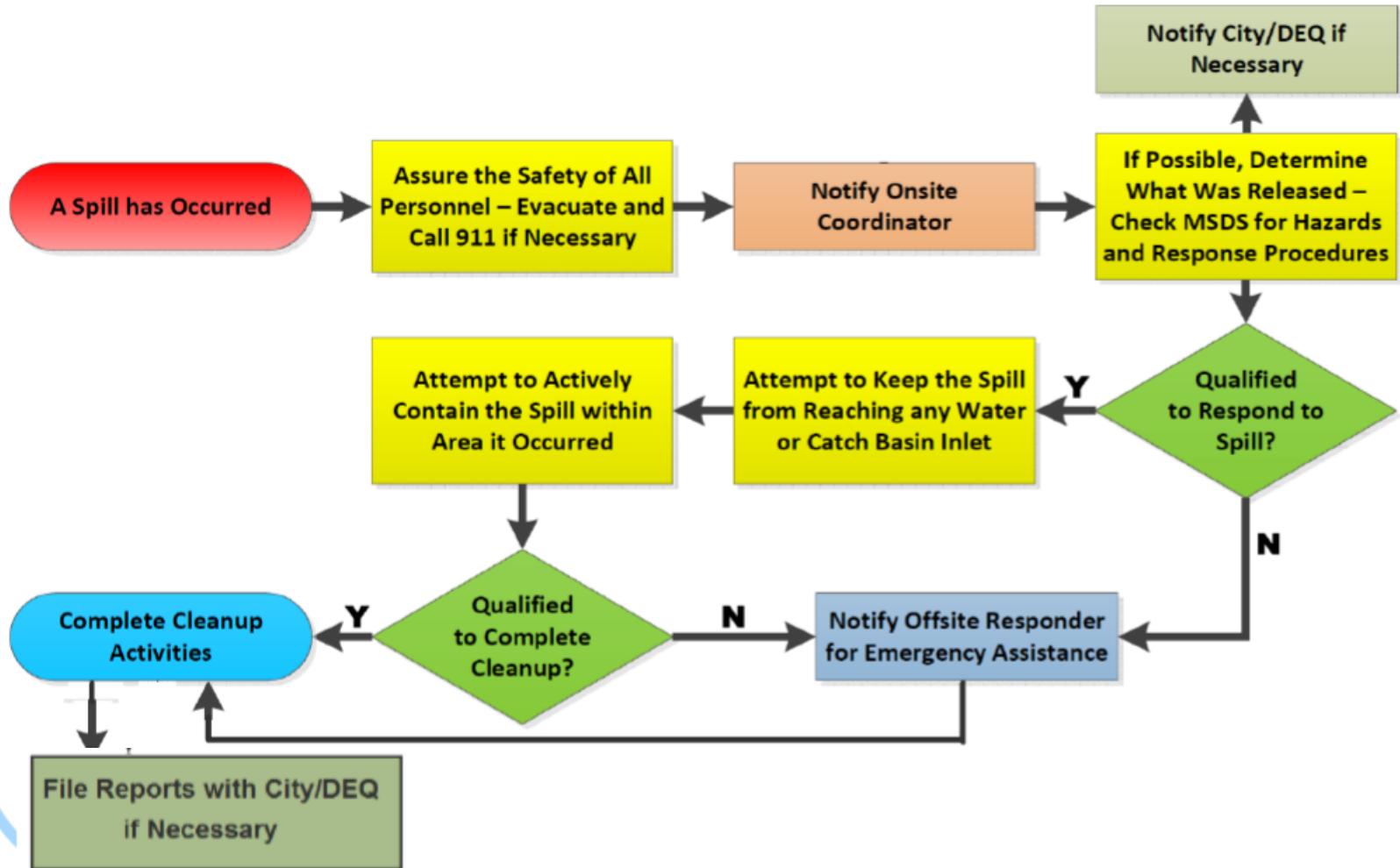
Spill Response Procedure

1. Contact facility spill response personnel
 2. Contain, stop and clean-up spill (personnel safety comes first!)
 3. Contact external regulators if:
 - ▶ Exceeds 43 gallons
 - ▶ Spill reaches soil or stormwater system
 - ▶ Exceeds other EPA/DEQ reporting levels (pesticides, chlorinates, solvents)
- 

Spill Response Procedures

- ▶ People first, 911 if appropriate
- ▶ Consult SDS (PPE?)
- ▶ Deploy spill kit:
 - ▶ Drain covers
 - ▶ Absorbents
- ▶ Use common sense
- ▶ Re-supply spill kits after use

Simple Response Diagram



Contact information

Kimberly Swan

Water Resource Manager
Clackamas River Water Providers
(503) 723-3510
kims@clackamasproviders.org

Brittney Wendell

Oregon Manager
Pacific NW Pollution
Prevention Resource Center
bwendell@pprc.org

