

# **Veolia NA Contractor Environmental, Health & Safety Orientation**

**Pennsylvania Operations**

# Welcome to Veolia in North America

## Orientation: Environment, Health & Safety (EHS)

- Policies
- Programs
- Procedures



# Purpose

To provide...

- Awareness level orientation—with respect to environment, health, & safety—for contractors working at Veolia facilities
- Additional required emergency and safety procedures specific to the location you are working at



# Scope

**This orientation provides important information to help you help Veolia maintain a safe work environment.**

- Security
- Emergency Action Plans
- Life Saving Rules
- Personal Protective Equipment (PPE)
- Safe Work Zones
- Confined Spaces
- Lock-Out/Tag-Out
- Trenching and Excavation
- Chemicals and Hazardous Materials
- Hazard Communication
- Spill Prevention (SPCC)
- Discharge Prevention (DPCC)
- Release Prevention (TCPA)
- Hazardous and Universal Waste
- Underground Storage Tanks
- Air Permits
- Main Dechlorination
- Asbestos Cement Pipe

**NO WORK** is to be done at the expense of **Safe Work practices!**



# Goal Zero-Leading Safety Together That is our Purpose



**Contractors are legally required to follow Veolia Environment, Health & Safety programs and procedures.**

# Drive-to-Zero Pledge

We focus our continual improvement efforts in alignment with Veolia's five (5) pillars:

- Management Involvement
- Employee Involvement and Development
- Communication and Dialogue
- Health & Safety Risk Management
- Health & Safety Performance Monitoring & Control



**Use safe work practices every day!**



# Life Saving Rules

Simple, clear, easy to understand

- Must be followed by all contractors as well as Veolia business areas
- For all employees around the world
- Does not substitute for existing procedures and policies

Everyone is responsible to stop work where a Life Saving Rule is not being followed.

**VEOLIA**

## LIFE SAVING RULES

Before starting a task, I always perform a mental safety assessment and stop if it's unsafe.

<b>TRAFFIC MANAGEMENT</b> I stay out of the path of moving vehicles or energised equipment.	<b>TRAFFIC MANAGEMENT</b> I always drive free from drugs and alcohol. I fasten my seat belt and I do not handle any communication device when driving.
<b>TRAFFIC MANAGEMENT</b> I signal, slow down and check surroundings, before turning and reversing.	<b>WORK AT HEIGHT</b> I keep my harness attached at all times when working at height and I protect others from falling objects.
<b>EXCAVATION &amp; TRENCHING</b> I enter excavations or trenches only if they are protected against collapse.	<b>CONFINED SPACES</b> I test the atmosphere and always have an attendant outside before entering & while working in a confined space.
<b>CONTROL OF HAZARDOUS ENERGY</b> I lock, tag and ensure zero state (mechanical, chemical, electrical, hydraulic, etc...) before any operation.	<b>ELECTRICITY</b> I identify electricity networks and check that electrical equipment or circuits are de-energized/isolated before any operation.
<b>HOT WORKS</b> I perform hot work only if the fire and explosion risks have been eliminated.	<b>LIFTING OPERATIONS</b> I never work or walk under suspended loads.
<b>HAZARDOUS MATERIALS</b> I only handle hazardous material if I understand the hazards and apply proper control measures.	<b>HIGH PRESSURE WATER, HYDROBLASTING, JETTING</b> I ensure the integrity and compatibility of all equipment for the pressure used, and verify the operation of the emergency stop.

alwayssafe

**Not following Life Saving Rules is grounds for immediate termination!**





### **TRAFFIC MANAGEMENT**

I signal, slow down and check surroundings, before turning and reversing.



### **WORK AT HEIGHT**

I keep my harness attached at all times when working at height and I protect others from falling objects.



### **EXCAVATION & TRENCHING**

I enter excavations or trenches only if they are protected against collapse.



### **CONFINED SPACES**

I test the atmosphere and always have an attendant outside before entering & while working in a confined space.



### **CONTROL OF HAZARDOUS ENERGY**

I lock, tag and ensure zero state (mechanical, chemical, electrical, hydraulic, etc...) before any operation.



### **ELECTRICITY**

I identify electricity networks and check that electrical equipment or circuits are de-energized/isolated before any operation.



### **HOT WORKS**

I perform hot work only if the fire and explosion risks have been eliminated.



### **LIFTING OPERATIONS**

I never work or walk under suspended loads.



### **HAZARDOUS MATERIALS**

I only handle hazardous material if I understand the hazards and apply proper control measures.



### **HIGH PRESSURE WATER, HYDROBLASTING, JETTING**

I ensure the integrity and compatibility of all equipment for the pressure used, and verify the operation of the emergency stop.



# Driving Safety



**TRAFFIC MANAGEMENT**  
I stay out of the path of moving vehicles or energised equipment.

**TRAFFIC MANAGEMENT**  
I signal, slow down and check surroundings, before turning and reversing.

**TRAFFIC MANAGEMENT**  
I always drive free from drugs and alcohol. I fasten my seat belt and I do not handle any communication device when driving.

- When driving on Veolia property
  - Follow all posted traffic signs
  - Avoid handling any communications devices
  - Key component of Life Saving Rules

**Follow safe driving rules off the job, too!**



# Security & Traffic Control

## “The Basics”

- All visitors must sign in/out
- Contractors must have ID card at all times
- Do not enter unauthorized or restricted areas
- Do not allow unauthorized persons onto company grounds



- **Parking and pedestrian traffic pose an increased safety risk**
  - Park in designated areas
  - Use extreme caution when driving/walking
  - Abide all traffic and pedestrian signage



# Security

- Sign-in with your site contact
- Advise who you're meeting with
- Wait to be escorted by your Veolia supervisor or designee
- Sign-out in lobby at end of day



# Security

- Veolia will provide access to the work area
- Veolia Supervisor or Designee is your primary point of contact
- Training card must be available (on site) upon request, at all times



# Fire Emergency Action Plan

In the event of a fire or fire alarm

Proceed immediately to the nearest exit



If you don't know where to go,  
follow Veolia employees. A Veolia  
representative will direct you.



# Fire Emergency Action Plan

When working in a new area, identify

- Nearest and alternate exits
- Fire extinguishers
- First Aid Kit/AED
- Designated Assembly Area



# Emergency Action Plan

## When calling for help

Provide the Emergency Operator with the following:

1. WHERE
2. WHAT
3. WHO YOU ARE
4. CONTACT INFORMATION



# Who to contact in an emergency

## FIRE & MEDICAL EMERGENCIES

Call 911 immediately. Don't delay!

## ALL EMERGENCIES

Please contact Veolia 24/7 to report emergency.

Process Operations at LDF: 914-906-1566

Outlying Facilities Scada Operations: 845-620-3328

Contact your Veolia Representative





# Good Housekeeping Practices

- Keep workplaces clean and orderly
  - Provide trash receptacles and dumpsters
  - Dispose of trash and debris properly
  - Keep floors, work areas, passageways free from obstruction, equipment, uncovered openings
- Over 50% of injuries caused by slips, trips, falls
  - Be cautious around stairs, steps, uneven walking surfaces
  - Keep your eyes open for wet or uneven areas
  - Always watch your step!
  - Fire extinguishers, eyewash, emergency showers, electrical panels must be accessible at all times!



# Hazardous Areas

## Be aware!

- Confined Spaces
- Trenches and Excavations
- Hazardous Materials
- Noise Hazards
- Mechanical Hazards
- Electrical Hazards
- Working at Elevation
- Roadway Work Zones



# Personal Protective Equipment (PPE)

PPE is required for all contractors

- Hard hats
- Eye protection
- Hearing protection
- High visibility vests
- Safety gloves
- Safety shoes
- Specialized PPE



**At minimum, ALL contractors must wear: Hard Hats, Eye Protection, Safety Shoes with steel toes.**



# Specialized PPE

- Respiratory protection
- Hearing protection
- Fall protection
- Splash goggles/face shield
- Electrical PPE
- PPE must be ANSI/ASTM compliant.



**Need additional PPE?  
Speak with your supervisor.**



# Safe Work Zone Requirements

## Work Safely!

- Establish safe work zones in coordination with Veolia personnel
- Implement traffic control plan
- Mark work zones with cones, barriers, signage
- Wear high-visibility vests at all times
- At Veolia facilities, mark work zones
  - Signs
  - Barriers
  - Marking
  - Lighting



# Permit-Required Confined Spaces (PRCS)

Contractors must follow

Veolia Permit-Required Confined Spaces Program



**29 CFR 1910.146**



# Permit-Required Confined Spaces (PRCS)

## Definition

- “Confined space”
  - Large enough to enter and do work
  - Limited/restricted entry and exit points
  - Not designed for continuous occupancy



# Confined Space Entry

## Contractor Requirement

You may not be authorized to enter, but you may still be working around confined spaces.

- Contractors must
  - Maintain written and documented training program prior to working in/around confined spaces
  - Provide all necessary equipment for entering, including gas monitoring and fall protection at depths 4 feet or greater SRL's and or retrieval equipment





# Overhead Hazards

Heads Up!

Be aware of obstacles and equipment overhead!



# Electrical Hazards

BE AWARE AT ALL TIMES!



**Only NFPA 70E trained and qualified contract employees may work on electrical systems.**



# Lock Out Tag Out (LOTO)

## Working with/around electricity

Contractors must:

- Use Lock Out/Tag Out procedure before beginning the job
- Be trained and follow LOTO procedures
- Coordinate control/shutdown of hazardous energy sources with Veolia operations



# Fall Protection

## Requirements



Fall protection is required:

- Drop = more than 4 feet
- Significant hazard exists below work area



# Fall Protection

## Training & Equipment

Contractors MUST:

- Be trained in fall protection and equipment
- Provide ANSI and OSHA approved safety equipment
  - Shock absorbing lanyards
  - Fall limiting devices
  - Self retracting lanyards
  - Retracting winches



# Ladder Safety

Use the appropriate type/size of ladder.

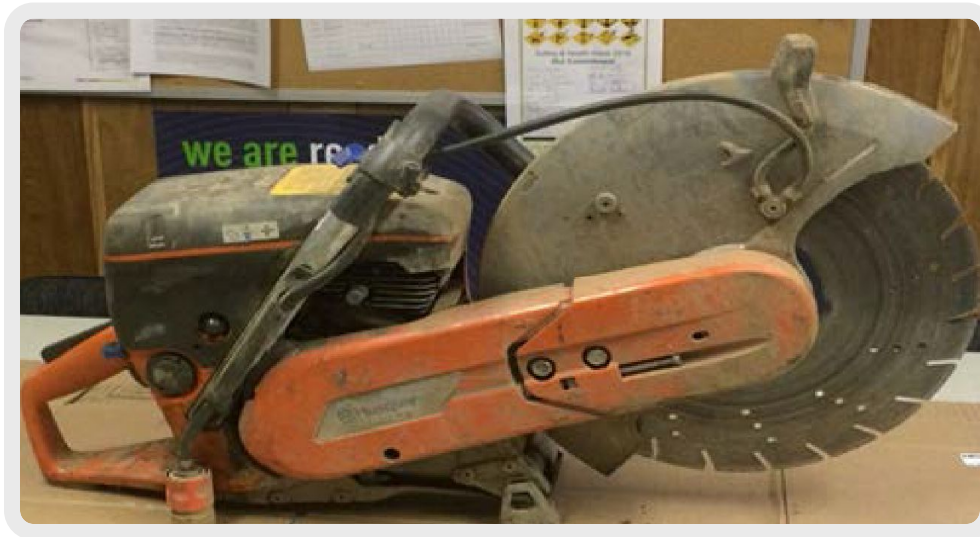


# Demolition Saw Usage

## Safety Precautions

Prevent injuries from improper use—or misuse—of Cut-off or Demo saw:

- Follow all manufacturer procedures
- Follow—and provide to Veolia—contractor's own safety procedures and practices
- Only use saws if properly trained on the use and safety features



# Demolition Saw Usage

## Safety Precautions

- Wear hardhat, leather gloves, face shield, safety glasses, safety shoes, hearing protection
- Make sure all guards and protective devices are
  - in place
  - in good condition
- Must not use near flammable substances or gases
  - If sparking occurs, complete a Hot Work Permit!
- Veolia does not allow use of Demo Saws within an excavation
- Work cautiously and methodically
  - Object must be supported
  - Hold saw firmly with both hands
- Never leave saw unattended
- Make sure unused saw is not a danger

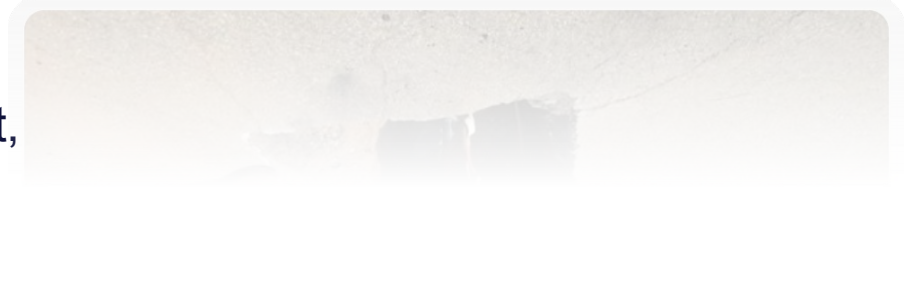




# Trenching & Excavation

Required!

- Competent Person **MUST** evaluate all excavations
- Legally responsible for ensuring Competent Person is present at all times
- Safety training
- Work must be done according to OSHA regulations
- **MUST** use protective equipment and procedures
- When excavating deeper than 5 feet, use a trench box at all times



# Trenching & Excavation

While working...

- Be aware of underground utilities
- Mark outs must be completed before digging, trenching and or excavating
  - Electric
  - Gas, oil, geothermal
  - Communications
  - Water mains
  - Sewer lines



# Underground Utilities

## Utility Markouts

Contractors are responsible for obtaining utility markouts for all excavations.



# Hot Work

Grinding, Cutting, Welding or Torches near combustibles



Welding and cutting must be pre-approved by supervisor and have proper permits.



# Hot Work

## Haworth Ozone Process Equipment

Work must be accompanied by a hot work permit that meets minimum requirements.

- **Contractors must submit Hot Work Permit to Veolia for review and approval, prior to starting work.**
- **Plans that do not meet requirements must be revised—and approved—prior to starting work.**



# Compressed Gases

Acetylene, propane, oxygen, others

- Combustible
  - Give off extreme heat or light
- Flammable
- Asphyxiant
- Corrosive
- Toxic
- Under high pressure
- Cryogenic
  - Cause frostbite



# Compressed Gases

## Cylinders

- Properly label cylinders
- Secure cylinders
- Oxygen and oxidizers stored away from fuel gases
  - 20 feet minimum
  - Separated by a fireproof wall
- Use valve protection caps



# Dechlorination

- Chlorinated water must not be discharged without following proper dechlorination procedures.
- AWWA has a dechlorination standard.
- Even a trace of chlorine will kill fish.
- Fish kills affect the food chain and the entire ecosystem.

**Strictly following the standard is Veolia procedure!**





# Dechlorination

## Standard Operating Procedure

- Review dechlorination requirements
- Conduct site inspection
  - Noting work area terrain, drainage area, nearest stream or water body
- Set up dechlorination equipment
- Commence discharge, applying dechlorination chemical



# Dechlorination

## Standard Operating Procedure

- Collect initial discharge sample for chlorine residual
- Adjust dechlorination chemical dose to achieve a non-detectable chlorine residual
- Collect and detect residual samples every 15 minutes



# Dechlorination

- Dechlorination must neutralize chlorine to non-detect levels
- Use environmentally safe chemicals
- Use proper chlorine testing equipment
- Contractor to determine method/guarantee performance

**Be prepared!**



# Spill Prevention (SPCC)

EPA regulates oils at facilities to:

- Prevent discharges from reaching navigable waterways
- Monitor efficient response to oil discharge
- Proactive measures used in response to discharges requires
  - Secondary containment
  - Delivery
  - Checklists
  - SOPs
  - Response to Emergencies



# Spill Prevention (SPCC)

What is included

- **AST's total storage of >1,320 gallons (includes bunkered & partially buried tanks)**
- **UST's total > 42,000 gallons**
- **All oil containers w/ capacity  $\geq$  55 gallons**
- **Mobile & portable containers**
- **Oil stored in equipment**



# Spill Prevention (SPCC)

## Contractor Requirements

Contractors must have their own certified SPCC Plan if...

- **Storing regulated materials exceeding 1,320 gallons at a Veolia NJ SPCC facility for >24 hours**
- **Adding to existing quantities results exceeds regulatory limits**



# Air Quality Permits

## Equipment: Permit Requirements

- Emergency Generators
  - Size dependent
- Tank vents
  - Depends on size/materials stored
- Gasoline Vapor Recovery
- Destruct Units
  - Ozonation
- Boilers

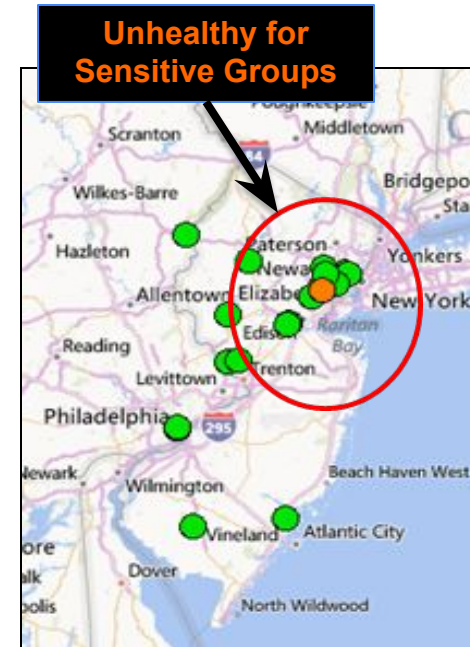
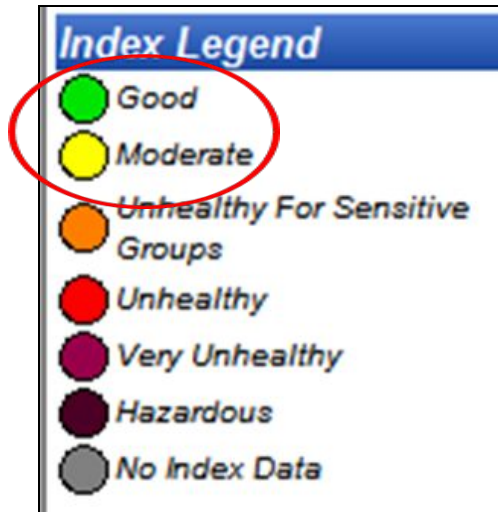


# Air Quality Permit

## Emergency Generator

### When can I operate the emergency generator for testing or maintenance?

- Air Quality = Good or Moderate throughout NY
- EPA: Air Quality daily status
- Veolia will advise





# Asbestos Cement Pipe (ACP)

Contractors must be...

- Properly trained in handling/disposal of asbestos-cement pipe (ACP)
  - Category II non-friable asbestos containing material
- Aware of regulations relating ability to maintain, remove, and dispose of ACP



# Asbestos Cement Pipe (ACP)

## Federal and State Regulations

- Any pipe rehabilitation (e.g., reaming), removal, or demolition activity that could break, damage, crush or pulverize ACP—releasing asbestos fibers into the air
  - Subject to federal Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR 61 Subpart M
- Contractor is responsible for knowing requirements for activities that abandon ACP in place
  - Requirements may vary by each state



# Hazardous & Universal Waste Management

“MUST...”

- MUST be stored in an appropriate container in good condition
  - Hazardous = ignitable, corrosive, reactive, toxic, or on an EPA Hazardous Waste list
  - Universal = light bulbs, batteries, mercury-containing equipment, pesticides, consumer electronics, oil based finishes, etc.
  - Check with the Veolia Project Manager for classification
- MUST be properly labeled
- MUST have manifest signed by appropriate Veolia personnel
- MUST remain on site until manifested and removed by qualified/permitted transporter

**HAZARDOUS WASTE**

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL  
IF FOUND, CONTACT THE NEAREST POLICE, OR PUBLIC SAFETY  
AUTHORITY OR THE, U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERATOR INFORMATION  
NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
EPA (MANIFEST ID NO./ DOCUMENT NO.): \_\_\_\_\_ / \_\_\_\_\_  
ACCUMULATION START DATE: \_\_\_\_\_ EPA WASTE NO.: \_\_\_\_\_

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX  
**HANDLE WITH CARE!**



# Hazardous Materials

- Other hazardous materials stored in smaller amounts
  - machine lubricants
  - oils
  - hydraulic fluids
- MUST be properly stored and labeled



# Hazardous Materials Storage

## Outlying Facilities

Sodium Hypochlorite

Sodium Hydroxide

Diesel

- Emergency Generator
- Lubricants
  - Equipment Maintenance
- Transformers exist at some facilities



# Hazard Communication

Hazardous materials exist throughout Veolia facilities.

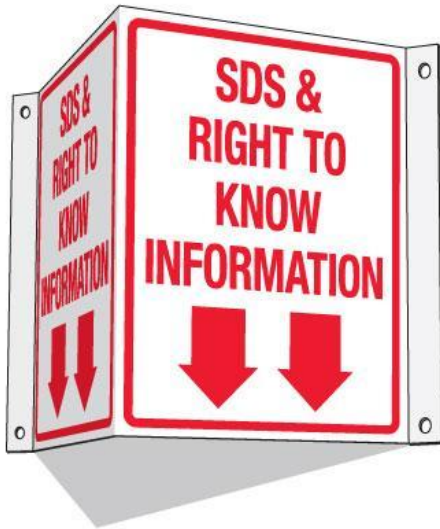
Contractors **MUST** have permission to work in these areas.



# Hazard Communication

## Globally Harmonized System (GHS)

- Hazardous Chemical Inventory
- Safety Data Sheets (SDS)
- Labels, tags, or signs



### GLOBALLY HARMONIZED SYSTEM (GHS)

#### GHS Labels

The sample label depicted below explains the components and design of the GHS labels.

**PRODUCT IDENTIFIER**  
Identify the hazardous material as identified. This can be done in a number of ways: by the chemical name, trade name, chemical formula, or by the common name. The manufacturer, importer, or distributor can decide the appropriate product identifier.

**HAZARD PICTOGRAMS**  
Pictograms are graphic symbols used to communicate specific information about the hazard(s) of a chemical, a mixture, or substance. The required pictogram consists of a hazard symbol and a pictogram background.

**SIGNAL WORD**  
Signal words are used to communicate the relative level of hazard of a chemical, a mixture, or substance. The signal words are 'Danger' and 'Warning'.

**HAZARD STATEMENTS**  
Hazard statements describe the nature and extent of the hazard(s) associated with a chemical, a mixture, or substance. They are used to communicate the hazard(s) of a chemical, a mixture, or substance.

**PRECAUTIONARY STATEMENTS**  
Precautionary statements describe the recommended measures to minimize or prevent adverse effects from the hazard(s) of a chemical, a mixture, or substance. They are used to communicate the recommended measures to minimize or prevent adverse effects from the hazard(s) of a chemical, a mixture, or substance.

**SUPPLEMENTAL INFORMATION**  
Supplemental information is used to provide additional information about the hazard(s) of a chemical, a mixture, or substance. It is used to communicate the hazard(s) of a chemical, a mixture, or substance.

**SUPPLIER IDENTIFICATION**  
Supplier identification is used to identify the supplier of a chemical, a mixture, or substance. It is used to communicate the supplier of a chemical, a mixture, or substance.

#### GHS Pictograms

 <b>CORROSION</b> • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals	 <b>EXCLAMATION MARK</b> • Irritant (skin and eyes) • Skin Sensitizer • Acute Toxicity (harmful) • Neurotoxic Effects	 <b>EXPLODING BOMB</b> • Explosives • Self-Reactives • Organic Peroxides
 <b>SKULLS &amp; CROSSBONES</b> • Acute Toxicity (fatal or toxic)	 <b>FLAME</b> • Flammable • Pyrophoric • Self-Heating • Self-Reactives • Organic Peroxides	 <b>GAS CYLINDER</b> • Gases Under Pressure
 <b>ENVIRONMENT</b> • Acute Toxicity (harmful to aquatic)	 <b>HEALTH HAZARDS</b> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity	 <b>FLAME OVER CIRCLE</b> • Oxidizers

#### 1.4.10.5.4.1 Location of GHS Information on the Label

The GHS hazard pictograms, signal word and hazard statements should be located together on the label. The Competent Authority may choose to provide a specified layout for the presentation of these and for the presentation of precautionary information, allow supplier discretion.

**Important: Contractors MUST provide SDS for chemicals brought on site.**

# Chemical Storage

Hazardous chemicals are stored throughout Veolia facilities.



Contractors must have prior authorization for working in or around these areas.



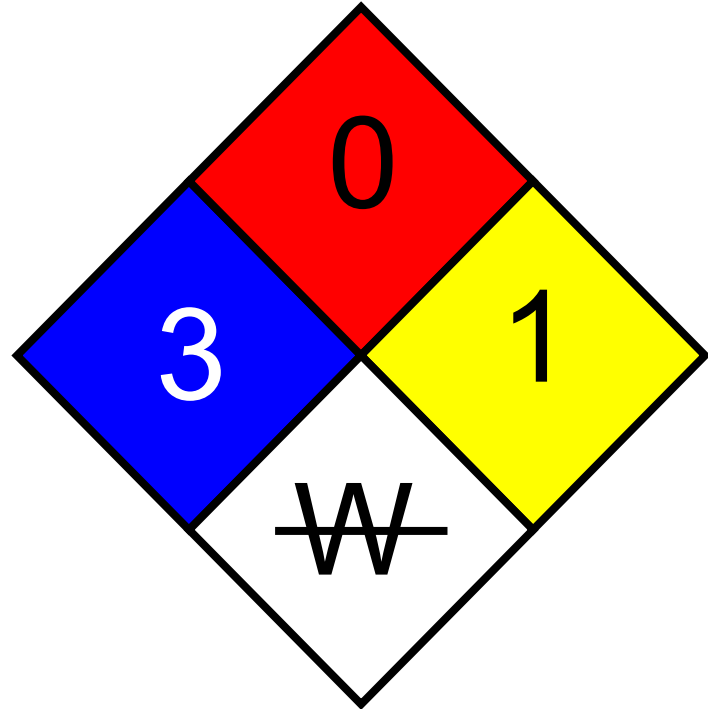


# Chemical Labels

## NFPA 704 Placards

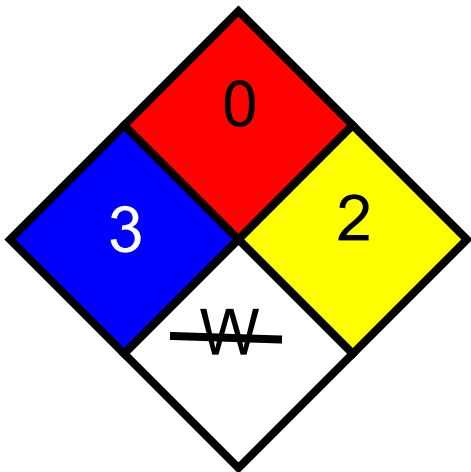
Chemicals are labeled with hazard identification and warning information.

- NFPA 704 Placards
  - primarily for emergency responders
  - flammability
  - reactivity
  - health hazards
  - other specific dangers



# Sulfuric Acid

- Used to adjust pH level at the beginning of water treatment process
- Corrosive
- Avoid direct contact
  - May cause burns
- Avoid inhalation
  - May cause respiratory tract irritation



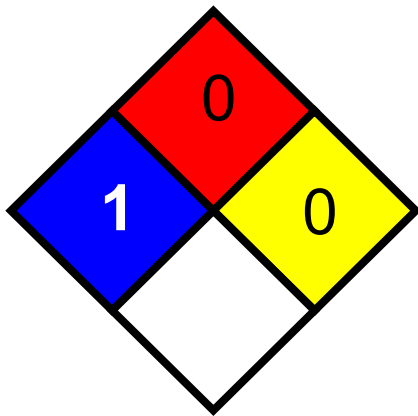
CAS# 7664-93-9



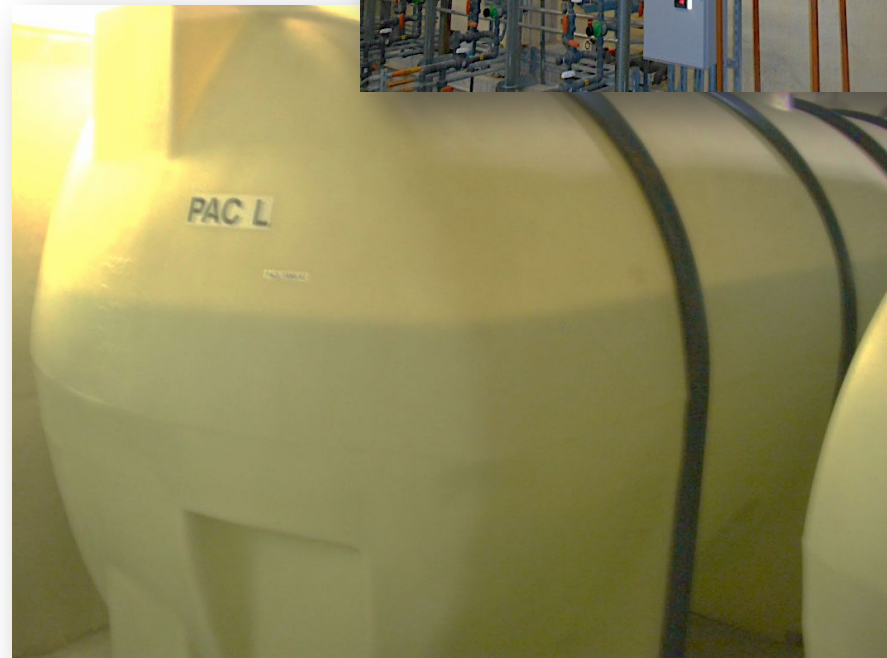
# Coagulants

## Poly Aluminum Chloride (PACL)

- Helps separate suspended solids
- Most effective winter months
- Avoid direct contact
  - Exposure may cause irritation/burns

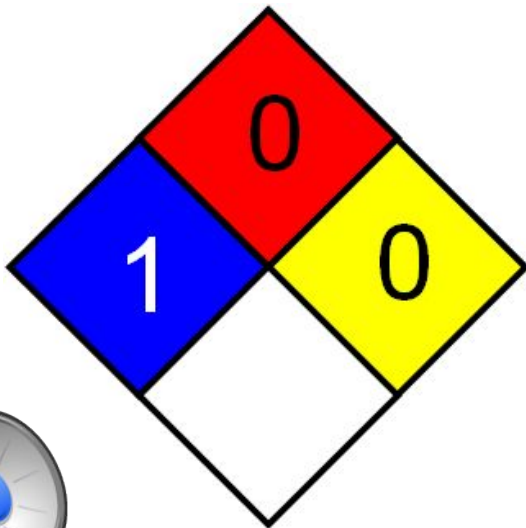



CAS# 39290-78-3



# Polymer

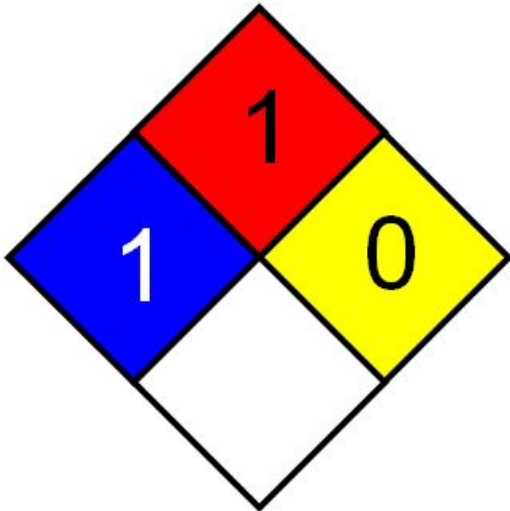
- Used year-round to separate suspended solid particles during purification
- Avoid direct contact




Polymer

<b>WARNING</b>
<b>May cause an allergic skin reaction.</b> Avoid breathing dusts. Do not get in eyes, on skin, or on clothing. Wear protective gloves, clothing, eye and face protection.

# Activated Carbon

- Removes volatile organic compounds, color, odor
- VOCs affect air quality
- May cause irritation
- Avoid inhalation



<b>Powder Activated Carbon</b>

<b>WARNING</b>
<p><b>Causes skin irritation. Causes eye irritation. May form combustible dust concentrations in air. Keep away from all ignition sources including heat, spark and flame.</b></p> <p>Wash skin thoroughly after handling. Seek medical attention if symptoms develop. Do not breathe dust/fume. Use only outdoors or in a well-ventilated area. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If ingested: DO NOT induce vomiting. If conscious, give several glasses of water. Seek medical attention if you feel unwell. In case of fire: Use water, dry chemical, chemical foam, CO2 or alcohol resistant foam to extinguish Store locked up in a well-ventilated place. Keep container tightly closed and away from heat and sources of ignition.</p>

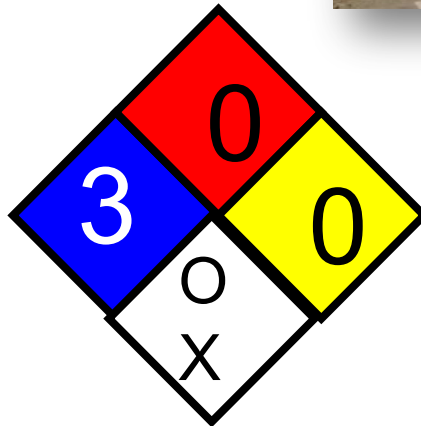


# Liquid Oxygen

- Used in ozone generation process
- Oxidizer
- Cryogenic
- Vapors
  - may cause dizziness or asphyxiation without warning
- Contact with gas or liquefied gas
  - may cause burns, severe injury and/or frostbite

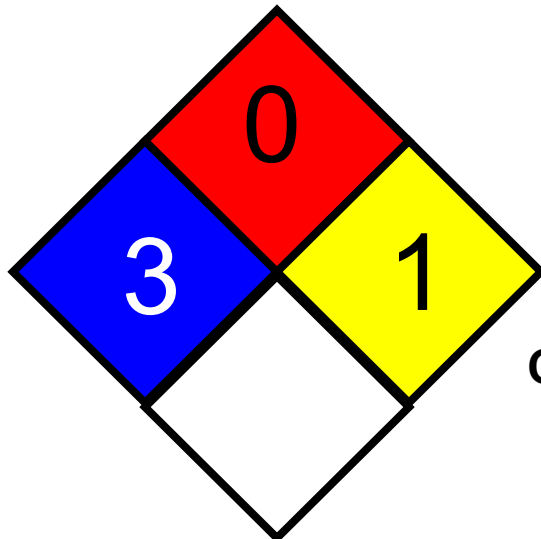


**CAS# 7782-44-7**



# Sodium Hydroxide

- Used to adjust the pH level
  - end of the water treatment process
- Corrosive
- Avoid direct contact
  - may cause burns
- Avoid inhalation
  - may cause respiratory tract irritation

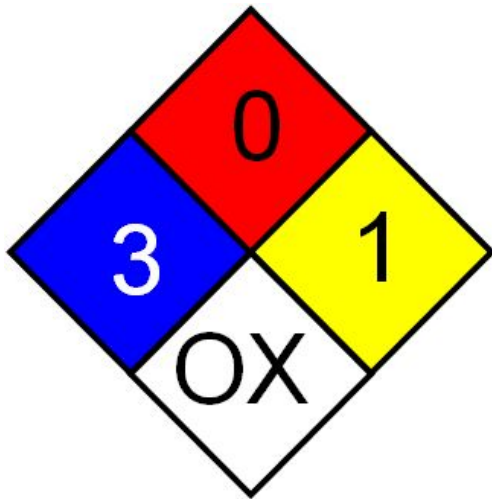




**CAS# 1310-73-2**



# Sodium Hypochlorite

- Used as disinfectant during water purification
- Strong irritant
  - may cause burns



Sodium Hypochlorite	
	
<b>DANGER</b>	
<p><b>May be corrosive to metals. Causes severe skin burns and eye damage. May cause respiratory irritation.</b></p> <p>Wear protective gloves/clothing/eye/face protection. Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (OR HAIR): Take off all contaminated clothing and wash before reuse. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Store tightly closed in a well-ventilated place locked up. Store in a corrosive resistant container with a resistant liner.</p>	





# Sequestering & Corrosion Control

- Inhibit corrosion
- Prevent discoloration
- Agents include:
- Phosphates
- Zinc orthophosphate (October 2017)
- Avoid direct contact
- May cause irritation

Blend of Inorganic Phosphates

**CAUTION**

**Wash hands thoroughly  
after handling  
Store in a cool, dry,  
well-ventilated area.**



# Flammable Liquids

## Petroleum-based fuels



- Power vehicles and generate electricity
  - Gasoline
  - Diesel
  - Kerosene
- Avoid contact
  - Liquid and vapor cause irritation



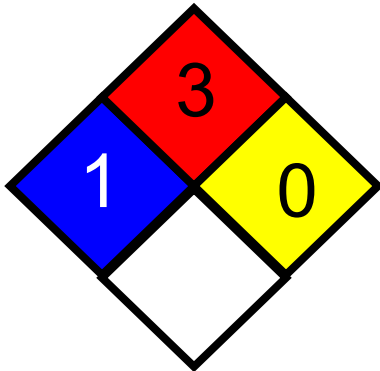
# Flammable Liquids

Fleet Vehicles & Emergency Generators



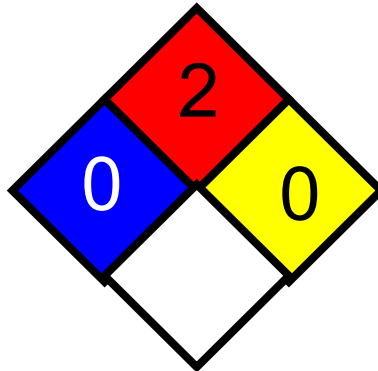
## Gasoline

CAS# 86290-81-5



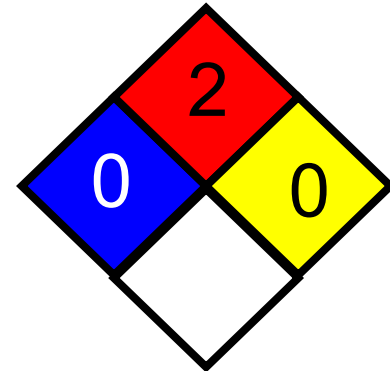
## Diesel

CAS# 68476-334-6



## Kerosene

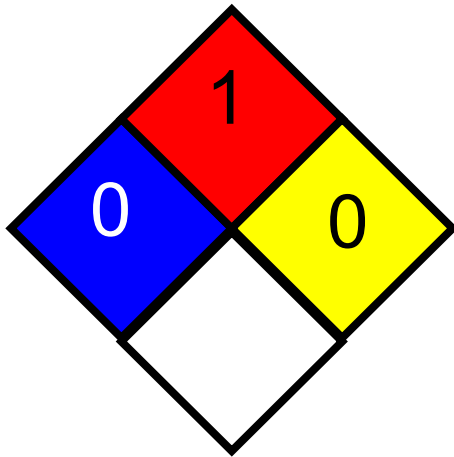
CAS# 8008-20-6



# Used Oil



- Maintenance activities may generate used oil
  - Must be stored properly prior to disposal
- Avoid contact
  - Liquid or vapor may cause irritation
- Use caution



# Chemical Deliveries

STAY CLEAR of designated areas when deliveries of chemicals are being transferred.



# Chemical Emergency Response

## Procedures for other chemicals

- Evacuations usually not required for spills
  - sodium hypochlorite
  - sodium hydroxide
  - poly aluminum chloride
  - polymer
  - sulfuric acid
  - ammonium sulfate
- At the time of the incident
  - Incident Commander will make determination
  - Information will be broadcast
  - Non-essential personnel denied access to area



# Chemical Emergency Response

- Evacuations usually not required for spills
  - kerosene
  - diesel fuel
  - used oil
  - gasoline
- At the time of the incident
  - Incident Commander will make determination
  - Information will be broadcast
  - Non-essential personnel denied access to area



# Chemical Emergency Response

## Spills in small quantities

- Evacuations usually not required for spills
  - acids/bases
  - solvents/cleaning agents
  - petroleum products
- At the time of the incident
  - Incident Commander will make determination
  - Information will be broadcast
  - Non-essential personnel denied access to area





# Chemical Emergency Response

## Table of Minor Spills



Chemical	Gallons
Ammonium Sulfate	~ 25
Diesel	~ 5
Gasoline	~ 5
Kerosene	~ 5
Poly Aluminum Chloride (PACl)	~ 5
Polymer	~ 5
Sodium Hypochlorite	~ 25
Sodium Hydroxide	~ 5
Sulfuric Acid	~ 5
Used Oil	~ 5
Other miscellaneous substances (e.g. acids/bases, solvents/cleaning agents, petroleum products)	~ 5

When spills exceed these amounts:  
Response procedure for that  
particular material is implemented.

Do not enter any area marked off  
by caution tape, cones, or other  
means of demarcation.

If you are in an area where you  
observe spill: Please contact your  
Veolia emergency contact.



# Chemical Emergency Response

## Response Procedures: Minor Spills



- Minor spills = <5 gallons
  - Evacuation generally not required
  - Supervision determines if evacuation is necessary or denies entry to areas based on the type of spill, location, and its proximity to staff
  - Non-essential personnel will be denied access to the spill area.
- Inform Veolia personnel immediately
- Major Spill = >5 gallons do not attempt to clean up
- Protect waterways, drains and storm drains with spill kits
- Make immediate calls to Veolia personnel and 911 if necessary



# Wrap up

Thank You!

You now have the important information you need to help Veolia maintain a safe work environment.

**Questions?**

**Speak to your  
Veolia contact.**

**We look forward to  
working with you!**

