

# Household Hazardous Waste for Managers

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# Class Objective

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- ❑ Demystify the regulatory requirements for managers of Household Hazardous Waste (HHW) facilities who are not directly involved in handling HHW
- ❑ Provide knowledge to encourage you to monitor staff/contractor to:
  - Understand basic operations
  - Ask questions
  - Verify and resolve compliance issues

# Disclaimer

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- Few regulators or regulatees understand the full scope of HHW regulations
- Those that do, often disagree on interpretations

*Real knowledge is to know the extent of one's ignorance.  
Confucius*



# Overview

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- ❑ Your Role
- ❑ Program Types
- ❑ Regulatory Requirements
- ❑ Permits/Approvals
- ❑ Operational Requirements
- ❑ Training Requirements
- ❑ Facility Inspection
- ❑ Record Keeping
- ❑ Due Diligence
- ❑ **THIS IS NOT A HAZWOPER CLASS**

# Your Role

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- ❑ Overall responsibility for HHW program
- ❑ Oversee contractors or staff
- ❑ Typically not handle HHW
- ❑ May sign shipping papers
- ❑ “YOU ARE GENERATOR”



# Program Types

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# "Household Hazardous Waste Collection Facility"

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- Means a facility operated by a public agency, or its contractor, for the purpose of collecting, handling, treating, storing, recycling, or disposing of household hazardous waste, and its operation may include accepting hazardous waste from conditionally exempt small quantity generators if that acceptance is authorized pursuant to Section 25218.3.

# Program Types

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- ❑ Permanent facilities
- ❑ Temporary facilities
- ❑ Recycle only (ABOP)
- ❑ Curbside
- ❑ Door-to-door
- ❑ Mobile
- ❑ Universal waste
- ❑ Latex paint, only
- ❑ CESQG
- ❑ Home Generated Sharps
- ❑ Load checking
- ❑ Illegal dumping
- ❑ Solid waste collection

# Waste Acceptance

	<i>All HHW</i>	<i>Antifreeze</i>	<i>Batteries, Lead Acid</i>	<i>Batteries, Household</i>	<i>Fluorescent lamps</i>	<i>Latex paint</i>	<i>Used oil &amp; Filters</i>	<i>Universal waste</i>
Permanent HHW	●	●	●	●	●	●	●	●
Temporary HHW	●	●	●	●	●	●	●	●
Recycle Only		●	●	●	●	●	●	●
Door-to-Door	●	●	●	●	●	●	●	●
Curbside				●	<4 ft	●	●	●

# Permanent facilities

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- A permanent or semipermanent structure at a fixed location that meets both of the following conditions:
  - (1) The facility is operated at the same location on a continuous, regular schedule
  - (2) The hazardous waste stored at the facility is removed within one year after collection.

Paint, Oil & Household Chemicals

# HOUSEHOLD HAZARDOUS WASTE FACILITY



### OPERATING INSTRUCTIONS

1. The maximum of this facility is limited to 1000 gallons of household hazardous waste per household. The waste will not be accepted if it is not in a container that is clearly labeled with the name of the household. The facility will not accept more than 10 gallons of one material from one household at a time.

Household Waste Facility

Household Waste Facility



Household Waste Facility







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# Temporary facilities

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- A household hazardous waste collection facility that meets both of the following conditions:
  - (1) The facility is operated not more than once for a period of not more than two days in any one month at the same location
  - (2) Upon termination of operations, all equipment, materials, and waste are removed from the site within 144 hours







# Recycle Only (ABOP)

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- A facility that accepts for recycling **only** recyclable household hazardous waste materials including:
  - Latex paint
  - Used oil
  - Used oil filters
  - Antifreeze
  - Spent lead-acid batteries
  - Universal waste including
    - **Intact** spent fluorescent lamps
    - **Intact** spent high intensity discharge (HID) lamps
    - Household batteries (**in compliance with Section 25216.1**)
    - Electronic wastes (mentioned in definition but not in 25218.8)

# Recycle Only (ABOP) (con.)

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- No hazardous wastes or other materials are handled at the facility other than the materials specified in paragraph (1) [electronics not listed]
- The materials are transported to the collection facility by either of the following:
  - The person who generated the material
  - The authorized curbside household hazardous waste collection program
- The materials transported to the facility are transported in accordance with Section 25218.5 (5 gallon/50 pound or 15 gallons/125 pounds)
  - Not including spent batteries

# Recycle Only (ABOP) (con.)

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- *The materials collected are not stored at the facility for more than 180 days*, except that less than one ton of spent lead-acid batteries may be stored at the facility for up to one year. More than one ton of spent lead-acid batteries shall not be stored at the facility for more than 180 days
- The materials collected are managed in accordance with the hazardous waste labeling, containerization, emergency response, and personnel training requirements of this chapter
- Notification sent to CUPA

# ABOP – Household Batteries

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- *Health and Safety Code 25216.1. (a)*
- Sent to authorized facility and all of the following conditions are met:
  - (1) The collection location is either of the following:
    - (A) *Location does not store more than 600 pounds of batteries at any one time and no batteries are stored for longer than 180 days.*
    - (B) A curbside collection program, no batteries are stored for longer than 180 days, and the public agency has considered appropriate volume limits and other necessary precautions to protect the public health, safety, and the environment.
  - (2) The batteries are stored and transferred in a manner which minimizes the possibility of fire, explosion, or any release of hazardous substances or hazardous waste constituents.

# ABOP – Household Batteries

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- *Health and Safety Code 25216.1. (a)*
  - (3) The collection location, transporter, and receiving facility retains a copy of the hazardous waste manifest or bill of lading used during transportation for a period of three years.
  - Bill of lading shall have, at a minimum, all of the following information:
    - The name, address, and telephone number of the collection location, transporter, and receiving facility.
    - A general description and quantity of batteries.
    - Date of the transfer.
    - Signatures of the transporter and the collection location representative.

# ABOP – Household Batteries (con.)

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- ❑ The batteries are not treated or reclaimed at any location exempted from the requirements of this chapter by this article.
- ❑ Transferred to a permitted recycling facility or to a disposal facility authorized to accept such batteries
- ❑ THE HHW facility may refuse to accept spent batteries if the volume of spent batteries delivered for receipt exceeds the facility's storage capabilities.
- ❑ A facility may charge a fee to recover the handling, storage, and disposal costs of those spent batteries, which shall not exceed the facility's handling, storage, and disposal costs.

# Curbside

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- ❑ A collection service authorized by a public agency with a registered hazardous waste transporter
- ❑ Collects one or more of the following types of HHW:
  - Latex paint (5 gallon limit/residence)
  - Used oil (5 gallon limit/residence)
  - Used oil filters (10 pound limit/residence)
  - Fluorescent lamps **less** than 4 feet in length
  - No mercury containing unless the waste is contained in secure packaging that prevents breakage and spillage.
- ❑ Shall be transported in closed containers and packed in a manner that prevents the containers from tipping, spilling, or breaking during transport.
- ❑ Different household hazardous wastes shall not be mixed within a container before or during transport

# Door-to-Door Program

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- ❑ “A program operated by a public agency, or its contractor, that collects HHW from individual residences, and transports that waste in an inspected and certified hazardous waste transport vehicle to an authorized HHW collection facility “
- ❑ No CESQG waste allowed
- ❑ Also called "household hazardous waste residential pickup service"
- ❑ Current controversy

# Door-to-Door Program

- Shall meet all of the following conditions:
  - The transported HHW shall be in closed containers and packed in a manner that prevents the containers from tipping, spilling, or breaking during transport.
  - Different household hazardous wastes shall not be mixed within a container before or during transport.
- Exempt from the use of a manifest when transporting HHW collected from individual residences to the facility
  - In lieu of a manifest, a receipt shall be issued for the household hazardous waste collected from an individual residence,
  - A copy of the receipt shall be retained by the public agency for a period of at least three years.



# Mobile

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- A portable structure within which a household hazardous waste collection facility is operated and that meets all of the following conditions:
  - (1) The facility is operated not more than four times in any one calendar year at the same location
  - (2) The facility is operated not more than three consecutive weeks within a two-month period at the same location
  - (3) Upon the termination of operations, all equipment, materials, and waste are removed from the site within 144 hours
- Not common in California



# Universal Waste

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- Facility that accepts only:
  - Household batteries
  - Fluorescent lamps
  - Electronic devices
  - CRTs
  - CRT glass
  - Mercury-containing equipment
  - Non-empty aerosol cans



# Latex Paint, Only

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- ❑ Acceptable at any location, e.g. retailers
- ❑ Managed according to all regulations
- ❑ Non-latex paint collected considered generated at facility
- ❑ Hazardous Materials Business Plan
- ❑ Transportable with bill of lading not manifest
- ❑ DTSC authorization of recycling facility not required
- ❑ AB 255 (Wieckowski)

# CESQG

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- "Conditionally exempt small quantity generator" or "CESQG" means a business concern which meets the criteria specified in Section 261.5 of Title 40 of the Code of Federal Regulations
- **Includes government agencies and non-profits**
- HHW Facility authorized by DTSC to accept HW from CESQGs
  - Limited to accepting, per calendar month, no more than
    - 100 kilograms (220 pounds) of HW, or
    - 1 kilogram of extremely or an acutely hazardous waste HW
  - ***includes all hazardous wastes including UW***
- *Not your job to verify status – only limit acceptance*
- 40 CFR 261.5 & Health and Safety Code 25218.3. (b)

# CESQG Responsibilities

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- ❑ EPA ID Number
- ❑ CESQG contacts HHW Facility prior to each delivery to confirm waste acceptable
- ❑ Vehicle owned and operated by the CESQG
- ❑ transported in “closed containers and packed in a manner that prevents the containers from tipping, spilling, or breaking during transport”
- ❑ Different wastes shall not be mixed within a container before or during transport

# CESQG – HHW Facility Role

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- Provide
  - oral, written, or electronic instructions to the CESQG prior to each delivery
  - on proper packing for the safe transportation of the specific HW being transported
- Track name, address, and EPA ID Number
- Track type and quantity of wastes
- Track fee, if any
- Refuse amounts over the limit

# Home Generated Sharps Consolidation Point

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- Submit application for approval by Medical Waste Local Enforcement Agency – *No SQG fee*
- HGS are prohibited from solid waste disposal
- HGS are not regulated as medical waste but after collection, shall be transported and treated as medical waste
- Must comply with all of the following:
  - All sharps waste shall be placed in sharps containers,
  - Sharps containers ready for disposal shall not be held for more than seven days without the written approval of the enforcement agency.



# Load Checking

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- HHW programs can accept wastes from solid waste facility load checking programs
- Typically considered “Household Like”
- Has separate EPA ID Number
- Must track quantity separately even if located on same facility



# Illegal Dumping

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- ❑ Abandoned roadside hazardous wastes can be accepted
- ❑ Often collected by public works departments
- ❑ HHW or CESQG?



# Solid Waste Collection

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- Some solid waste facilities accept recyclable and universal hazardous wastes
- A new situation where franchised solid waste collectors offer or are required to provide certain HHW services; such as:
  - Used oil and filter collection
  - Universal wastes
  - Sharps
  - Door-to-Door (jurisdiction must be generator)

# Regulatory Requirements

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# Regulatory Requirements

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- Title 22 – California Hazardous Wastes
  - Health & Safety Code
- Title 8 – Cal/OSHA
- 49 CFR – HazMat Transportation
- Other – Medical Waste, Dept Food & Ag
- Permits and approvals
  
- HHW exempt from federal standards

# Regulatory Requirements

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## Title 22 = Hazardous

- PBR
- Waste classifications
- Operating standards
- Transportation
- Universal waste

## Title 8 = Safety p4

- HAZWOPER Training
- Safety and Health Program
- Hazard Communication
- Medical Surveillance
- Personal Protection Equipment

# 49 CFR – HazMat Transportation

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- Regulates transportation of hazardous materials and hazardous wastes
- Lists hazardous materials shipping names
- Enforced by California Highway Patrol
  
- *Note: public agencies using public vehicles exempt from DOT Hazardous Materials Rule but not California (Driver endorsement >1,001 lbs).*

# Other

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- Medical Waste – Dept. of Public Health
  - Sharps
  - Medical wastes
  - Pharmaceuticals
  - Radioactives
- Dept Food & Ag
  - Hauling of grease

# Permits/Approvals

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- EPA ID number
- Permit-by-Rule (PBR)
  - Permanent
  - Temporary
  - Recycle-Only (ABOP)
- Universal Waste Handler Registration
  - Cut cords or physical alterations
- Phase 1 Environmental Assessment
- Engineer Certification – Tanks, Lockers
- Financial assurance
- Home-generated Sharp Consolidation Point
- Hazardous Materials Business Plan
- *Do not forget CEQA and Land Use*

# EPA ID number

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- ❑ Call DTSC to obtain CAH number.
- ❑ CAH flags wastes an exempt from taxes
- ❑ Not typically issued to householder
- ❑ Required on Uniform Hazardous Waste Manifest

# Permit-by-Rule (PBR)

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- Operator must be Public Agency
- PBR submitted to CUPA with Copy to DTSC
- Submitted in person or by certified mail with return receipt requested a minimum of 45 days in advance of the event
  - Temporary PBR (DTSC Form 8464)
  - Permanent PBR (DTSC Form 1094B)

# Permanent PBR

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- ID Operator & Contractor
- List permits
- Identify property ownership
- List waste types
  - Accepted
  - Not accepted
- Identify consolidated wastes
- Waste volume
  - Average total per month
  - Container capacity
- Days/hours of operation
- Facility description
- Attach
  - Plot plan with wind rose
  - Closure financial responsibility
  - Written agreement
- Signed by principal executive officer or ranking elected official

# Closure Financial Responsibility

- Typically Certificate of Self-Insurance
  - Form 1220
  - Signed by Public Agency Official
- Also allowed:
  - closure trust fund;
  - surety bond guaranteeing payment into a closure trust fund;
  - closure letter of credit;
  - closure insurance;
  - financial test and corporate guarantee for closure;
  - multiple financial mechanisms;
  - alternate financial mechanism approved by DTSC; or
- Adjusted annually for inflation or within 30 days after a change in the closure plan increases the cost of closure.



# Temporary PBR

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- ❑ ID Operator & Contractor
- ❑ Will CESQG be accepted
- ❑ Agency notifications
- ❑ List permits
- ❑ Identify property ownership
- ❑ Days/hours of operation
- ❑ Operator certification signed by principal executive officer or ranking elected official



# Universal Waste Handler

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- A universal waste handler is a generator of universal waste or the owner or operator of a facility that receives universal waste from another universal waste handler, accumulates universal waste, and sends universal waste to another universal waste handler, a facility that accepts hazardous waste, or a foreign country

# Universal Waste Handler

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- A universal waste handler may be:
  - A person (e.g., a household or business) who generates universal waste but does not accept universal waste from others
  - A person who accepts and accumulates universal waste generated by others at his or her facility
  - A person who accepts universal waste generated by others and conducts certain treatment and recycling activities allowed by the universal waste handler regulations

# Treatment

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- ❑ Dismantling and/or physical processes such as shredding, grinding, sawing, cutting, compacting etc.
- ❑ Separation based upon physical properties and/or
- ❑ Screening to separate components based upon size

# Notice of Intent - Recycler

## DESCRIPTION OF TREATMENT/RECYCLING PROCESSES

### ELECTRONIC DEVICES

1. Dismantle electronic devices into their respective components using manual methods and hand tools or mechanical separation of parts. (The only treatment residuals will be components of the electronic device - e.g., plastic, circuit boards, integrated circuits, metals, wiring, UW batteries and lamps, etc.)
2. Process electronic devices by methods that do not generate residual materials exhibiting any hazardous waste characteristics and do not use heat, chemicals or water. (e.g. treatment methods that generate dust and require a baghouse do not qualify.)
- Size reduction, crushing, cutting, sawing, compacting, shredding, etc after removing batteries, lamps, and other universal wastes
  - Separation technology
- Other treatment method that does not generate residuals exhibiting a hazardous waste characteristic and is not scrap metal or a universal waste. Please describe:
3. Electronic devices and/or residual printed circuit boards that are not scrap metal and do not qualify for management as universal waste product hazardous waste residuals because of any of the following treatment methods: §
- Size reduction, crushing, cutting, sawing, compacting, shredding, etc after removing batteries, lamps, and other universal wastes
  - Separation technology
  - Sampling, burning, or ball-milling of samples of electronic devices and/or treatment residues
  - Other treatment method that does not generate residuals exhibiting a hazardous waste characteristic and is not scrap metal or a universal waste. Please describe:

# Phase 1 Environmental Assessment

- Required within one year of starting operations and includes:

- Facility information
- Facility history
- Facility Walk-through inspection
- Areas of concern
- Assessment checklist

- Signature and certification

- owner, operator, or independent professional engineer, geologist, or an environmental assessor

State of California-California Environmental Protection Agency

Department of Toxic Substances Control

## TIERED PERMITTING PHASE I ENVIRONMENTAL ASSESSMENT CHECKLIST

SECTION I: FACILITY INFORMATION	
Instructions: Complete the following descriptive information about your facility. This information accurately describes the location of your facility and establishes mailing and phone contacts. If facility location and mailing address are identical, you may put "same" into facility mailing address spaces.	
Type of Permit:	Permit by Rule ____ Conditional Authorization ____
1. CURRENT FACILITY NAME:	PAST NAMES (Attach additional pages if necessary):
2. EPA I.D. NUMBER:	
3. NAME OF FACILITY OWNER (see definition of owner):	
4. NAME OF FACILITY OPERATOR:	
5. NAME OF PROPERTY OWNER:	
6. FACILITY LOCATION ADDRESS:	
STREET:	
CITY:	
COUNTY:	
STATE:	ZIP CODE:

# Engineer Certification – Lockers

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- Certify containment system
  - A base under the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;
  - The base shall be sloped or the containment system shall be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;
  - The containment system shall have sufficient capacity to contain precipitation from at least a 24-hour, 25-year storm plus 10 % of the aggregate volume of all containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;

# Engineer Certification – Lockers

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- Certify containment system (con.)
  - Run-on into the containment system shall be prevented unless the collection system has sufficient excess capacity in addition to that required in subsection (b)(3) of this section to contain any run-on which might enter the system; and
  - Spilled or leaked waste and accumulated precipitation shall be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system. If the collected material is a hazardous waste under chapter 11 of this division, it shall be managed as a hazardous waste in accordance with all applicable requirements

# Engineer Certification – Lockers

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- Engineering certification provided by:
  - a manufacturer,
  - an **independent professional engineer registered in the State of California** or
  - a professional engineer employed by the local government entity and from a different division or agency than the operator.

# Engineer Certification - Tanks

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- Independent, qualified, California-registered professional engineer certifies:
  - Design/configuration
  - Secondary containment
  - External corrosion protection
  - Spill prevention or overfill equipment.
- Used oil and antifreeze tanks can be exempted for three years if Fire Marshall agrees
  - See CalCUPA Guidance

# Hazardous Materials Business Plan

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- Required for any facility *handling, at any time, any individual hazardous material in an aggregate amount equal to or greater than 55 gallons (liquids), 500 pounds (solids), or 200 cubic feet (gases).*
- Submittal to CUPA
- <http://www.calcupa.net/>
- <http://www.unidocs.org/hazmat/business-plan/index.html>



# CEQA and Land Use

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- ❑ May contain restrictions on use of hazardous materials or hazardous wastes
- ❑ Verify zoning is appropriate
- ❑ Contact local planning agency

# Operational Requirements

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# Operational Requirements

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- ❑ Public Education
- ❑ Operations Plan
- ❑ Training Requirements
- ❑ Personal protective equipment (PPE)
- ❑ Operational procedures
- ❑ Waste handling and classification
- ❑ Reuse/Material Exchange
- ❑ Facility Inspection

# Public Education

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- Provide safety instructions to public
  - Legal transport amount
    - 5 gallons or 50 pounds
    - Agency can increase to 15 gallons and/or 125 lbs with adequate public education programs to inform the public on proper techniques for packaging and transporting
  - Store in trunk
  - What about unknowns?
  - What's unacceptable?
    - Still need contingency



# Operations Plan

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- ❑ Required by Title 22
- ❑ Foundation of operations
- ❑ Enforceable
- ❑ No set format
- ❑ Available for review by any agency with jurisdiction



# Operations Plan

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- ❑ Facility information
- ❑ Operational procedures
- ❑ “Waste Analysis Plan”
- ❑ Material Exchange Program Quality Assurance Plan
- ❑ Personal Protective Equipment
- ❑ Training
- ❑ Use and management of containers
- ❑ Personnel
- ❑ Inclement weather
- ❑ CESQG management



# Operations Plan (con.)

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- ❑ Bulking protocol approved by local fire and air agency
- ❑ Agreement with property owner
- ❑ Agreement between operator and contractor
- ❑ Procedures whenever facility exceeds maximum storage
- ❑ Emergency Response Plan
- ❑ Record Keeping
- ❑ “Closure Plan”
- ❑ Copy CUPA Notification and Authorization
- ❑ Copy Financial Assurances



# Operations Plan – Title 8

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- ❑ Safety and Health Plan
- ❑ Hazard Communication Program
- ❑ Medical Surveillance Program
- ❑ Decontamination Program
- ❑ New Technology Program
- ❑ Material Handling Program
- ❑ Training Program
- ❑ Emergency Response Plan

# Operations Plan

## Permanent vs. Temporary

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### Permanent

- ❑ Continuous base, free of cracks and Sufficiently impervious
- ❑ *(Plastic not required)*
- ❑ Not required to have a separate area for wastes to be transported off-site

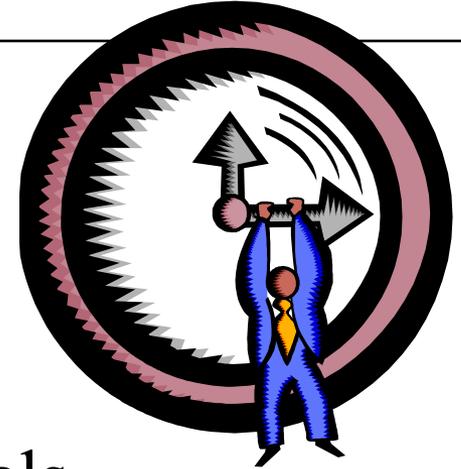
### Temporary

- ❑ All waste handling areas (with exception of traffic areas) must be covered with continuous plastic sheeting of at least 6 mil thickness
- ❑ Punctured or torn plastic must be repaired immediately

# Training Frequency

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- Initial
- Refresher/Annual
- Periodic
  - Change in process or new chemicals
  - In response to incidents
  - New requirements
  - Interest



# Training Methods

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- ❑ Annual Refresher
- ❑ Tailgate Safety
- ❑ On-the-job training
- ❑ On-line Courses
- ❑ Site Specific Requirements
  - Must be included
- ❑ Equivalent documentation or certification of work experience or training





# Training Requirements

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- HAZWOPER
- Universal Waste
- DOT Hazardous Materials Transportation
- Personal Protective Equipment
- Bloodborne pathogens

# HAZWOPER

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- **Hazardous Waste Operations and Emergency Response**
- Federal 29 CFR §1910.120
- California Code of Regulations §5192
  - (D) HHW Operations
  - (E) Emergency response operations for releases of, or substantial threats of releases of, hazardous substances without regard to the location of the hazard.



# HHW Facility Personnel Training

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- Initial training is 24 hours
- Annual refresher training is 8 hours
- Written certificate attesting that they have successfully completed the necessary training.
- Title 8, Section 5192, (p)(7)

# Household Hazardous Waste Training Matrix

Topic/Job Function-Activity	Hours	Frequency	Receiving	Packaging	Building	Unknowns	ABCOP Program	Aboveground tank	UST	Emergency Responder	CRT Handling/Dismanting	Forklift Operator	Asbestos - Friable	Asbestos - Nonfriable	Air compressor	Radiation Safety	Medical waste
40-hour (Title 8, Section 5192)	40 (R)	I & A															
24-hour (Title 8, Section 5192)	24 (R)	I & A															
8-hour (Title 8, Section 5192)	8 (R)	I & A															
DOT 49CFR 172.704	2 - 6	I+3 years															
Respiratory Protection	1	I & A															
Hearing Conservation	1	A															
First aid	2	P															
CPR	2	P															
Fire Extinguisher	1	I & A															
PPE	1 - 4	I & A															
ER awareness	1 - 4	I & A															
ER Level 1	8	A															
ER level 2	8	A															
SPCC (>1,320 gal)	1	I & A															
Lead	1	I & A															
CRT	0.5	I & A															
Bloodborne Pathogen	0.5 - 6	I & A															
Forklift	4	I & A															
Hazoom	1	I & A															
Asbestos	1	I & A															
IIPP	2	I & A															
Lock-out/Tag-out	0.5	I & A															
Ergonomics	1	P															

A = Annual and Initial  
 I = Initial  
 P = Periodic, as needed

Other Potential Trainings:  
 Accident investigation; electrical safety; emergency action/response plans; lab safety; bonding and grounding; tool safety; machine guard training; fall protection; safety inspections.

# Personal Protective Equipment

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# Why PPE is Used

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Aerosol paint can  
exploded while  
cleaning bale

# Personal protective equipment (PPE)

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- ❑ Administrative and engineering controls assessment required before issue PPE
- ❑ Training required
- ❑ PPE is a temporary barrier





# Limitations of PPE

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- ❑ Impairs mobility, vision, and communication
- ❑ Incompatible with other PPE
- ❑ Problems with mask fit
- ❑ Can cause physical and psychological stress
- ❑ Heat stress
- ❑ Hinders work performance
- ❑ Limits active work time

# Safety Glasses

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- Rated for impact
  - ANSI Z87 or Z94 (Canadian)



*Safety Glasses With Vented Side Shields* (Impact Only)



*Safety Glasses With Nonvented Side Shields* (Impact Only)



*Visorgogs®* (Impact Only)



*Impact Safety Goggles* (Impact Only)



# PPE – EYE & FACE PROTECTION

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**Commons causes of eye & face injury include:**

- Flying objects & particles
  - Grinding, sanding, chiseling
- Toxic gases, vapors & chemical splashes
  - Testing of chemicals, opening containers
- Being struck by a swinging object
  - Overhead crane hoist, chains, cables

# PPE – EYE & FACE PROTECTION

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## **Emergency Eyewash Station Requirements**

Title 8, §5162

“Emergency eyewash facilities and deluge showers shall be in accessible locations that require no more than 10 seconds for the injured person to reach”

# Gloves

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- ❑ Selection must match task
- ❑ Not all gloves equal even if same composition
- ❑ Leak rates vary
  
- ❑ NOTE - Remove before opening trunk

# Glove Selection Chart

- 4 Excellent, breakthrough times generally greater than 8 hrs
- 3 Good, breakthrough times generally greater than 4 hrs
- ~~2 Fair, breakthrough times generally greater than 1 hr~~
- 1 Not Recommended, breakthrough times generally less than 1 hr
- ? Not tested or No information, check other references

	Natural Rubber	Neoprene	Butyl	PVC	Nitrile
Acetic acid	2	3	4	2	1
Benzene	1	1	1	1	1
PCB's	1	4	4	?	2
Hydrochloric acid <37%	3	3	4	3	3
Acetone	1	1	4	1	1
Hydrogen Peroxide	4	2	4	3	4

# Glove Test





# Respiratory Protection Program

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- ❑ 29 CFR 1910.134, Title 8, Section 5194
- ❑ Written Program
- ❑ Qualified Program Administrator
- ❑ Training
- ❑ Medical Monitoring
- ❑ Fit Test
- ❑ Respirators

# Respiratory Protection

---

## User Limitations To Obtain An Air-Tight Facial Fit

- Eyeglasses
- Facial Hair
- Impaired Facepiece Seal
- Medical Condition



# Eating, Drinking, & Smoking

---

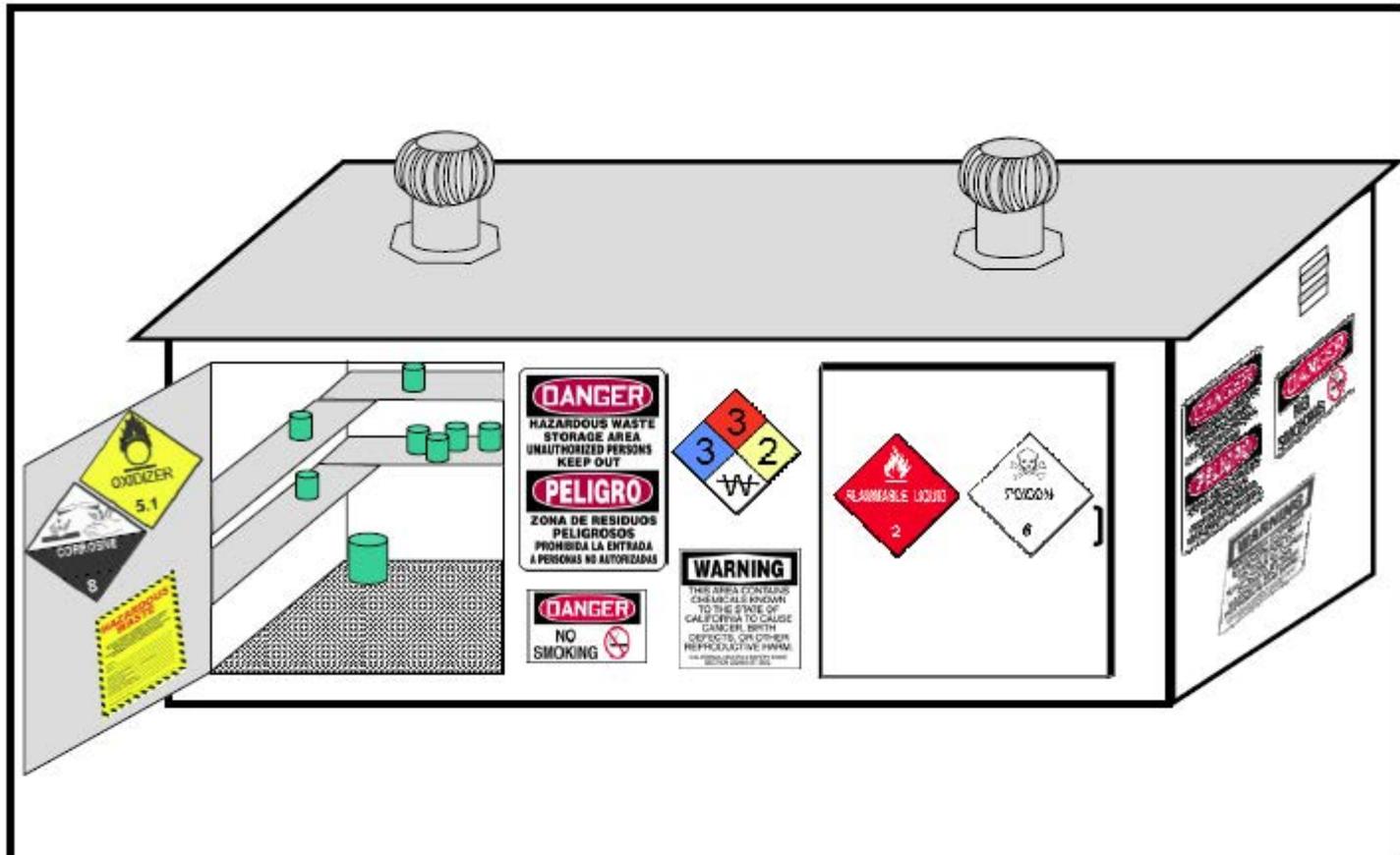
- Eating and Drinking areas – 29 CFR 1910.120 (g)(2)
  - No employee shall be allowed to consume food or beverage in a toilet room nor in any area exposed to toxic material.
- Smoking at HHW's
  - Don't do it!

# Signage

- Visible from all approaches
- Legible from a distance of at least 25 feet.
- Language on the signs will be in English, Spanish and in any other language predominant in the area surrounding the facility



# Facility Signage



## Household Hazardous Waste Locker Signage Locations

Side signs should be repeated on both sides and back of locker to be visible from all directions.

Door DOT hazard class signs need to also be visible when doors are open.

Now Ready to Get to  
Work

---



# Operational Procedures

---

- Entrance
- Receiving area
- Waste Handling area
- Labeling
- Packaging
- Bulking
  
- Carts



**HOUSEHOLD  
HAZARDOUS  
WASTE DAY**



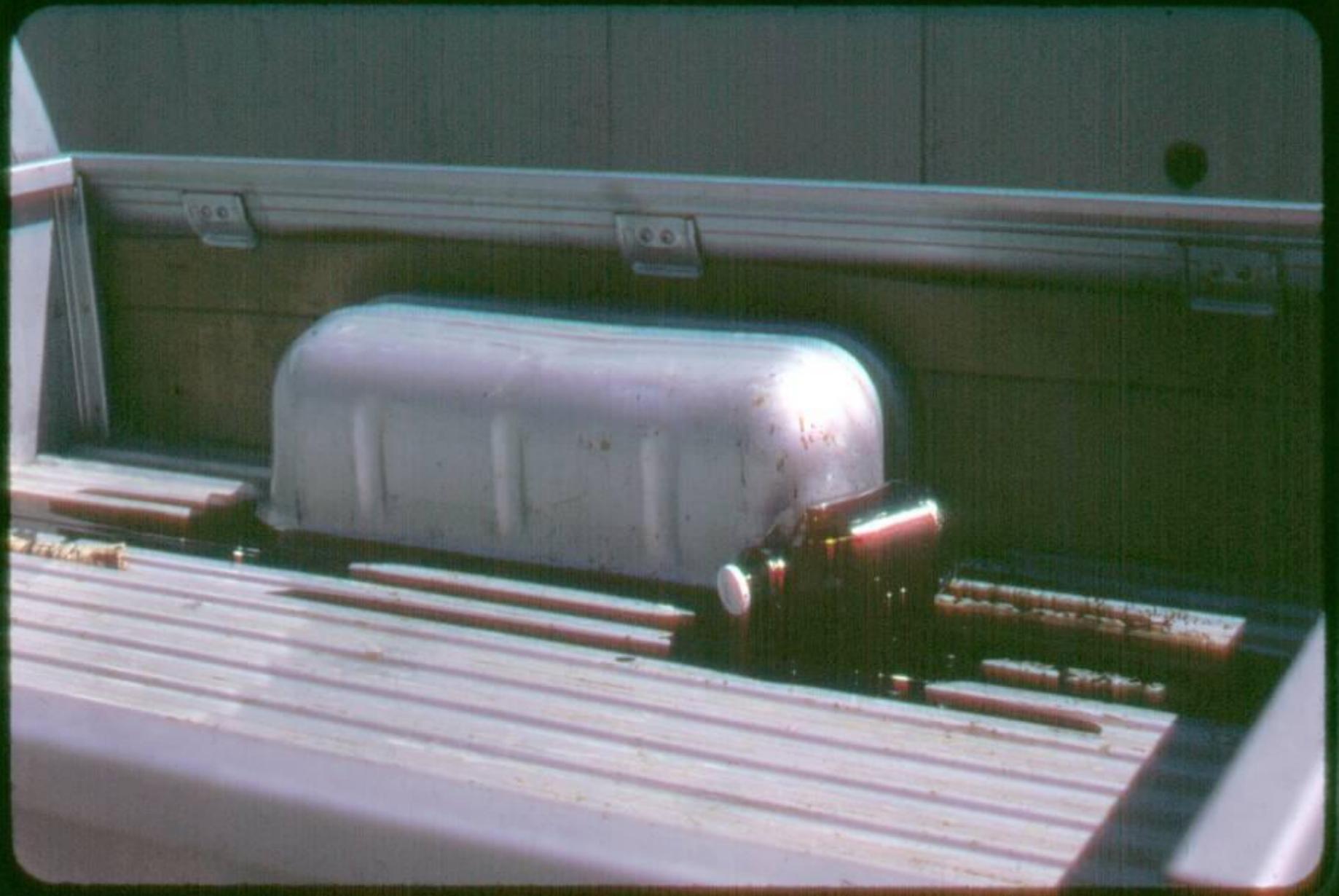
**COUNTY OF NAPA**

# One Type of Directional Sign

---











GM Parts

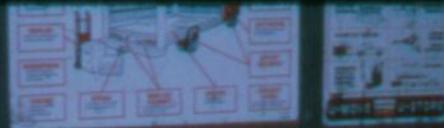
3WAYAUTOGROUP.COM  
661.283.3550

PERFORMANCE PARTS 1999

7X609L5  
BAKERSFIELD







PRESTONE  
00552  
AF-552  
WINTER/SUMMER II  
50% ANTIFREEZE  
50% WATER

MS 2891 B

SMOKING  
FUMAR

Cal EPA  
Award  
Winning  
Facility

Best New  
Hazardous  
Collection



**CAUTION**  
Hazardous Waste Storage Area  
No Smoking, No Open Flame  
No Food or Drink  
No Pets  
No Cell Phone Use  
No Alcohol Consumption

**WARNING**  
Hazardous Waste Storage Area  
No Smoking, No Open Flame  
No Food or Drink  
No Pets  
No Cell Phone Use  
No Alcohol Consumption









**DANGER**  
HAZARDOUS  
MATERIAL AREA  
**PELIGRO**  
ZONA DE MATERIALES  
PELIGROSOS



# Oops!

---





This is why HHW goes in the trunk

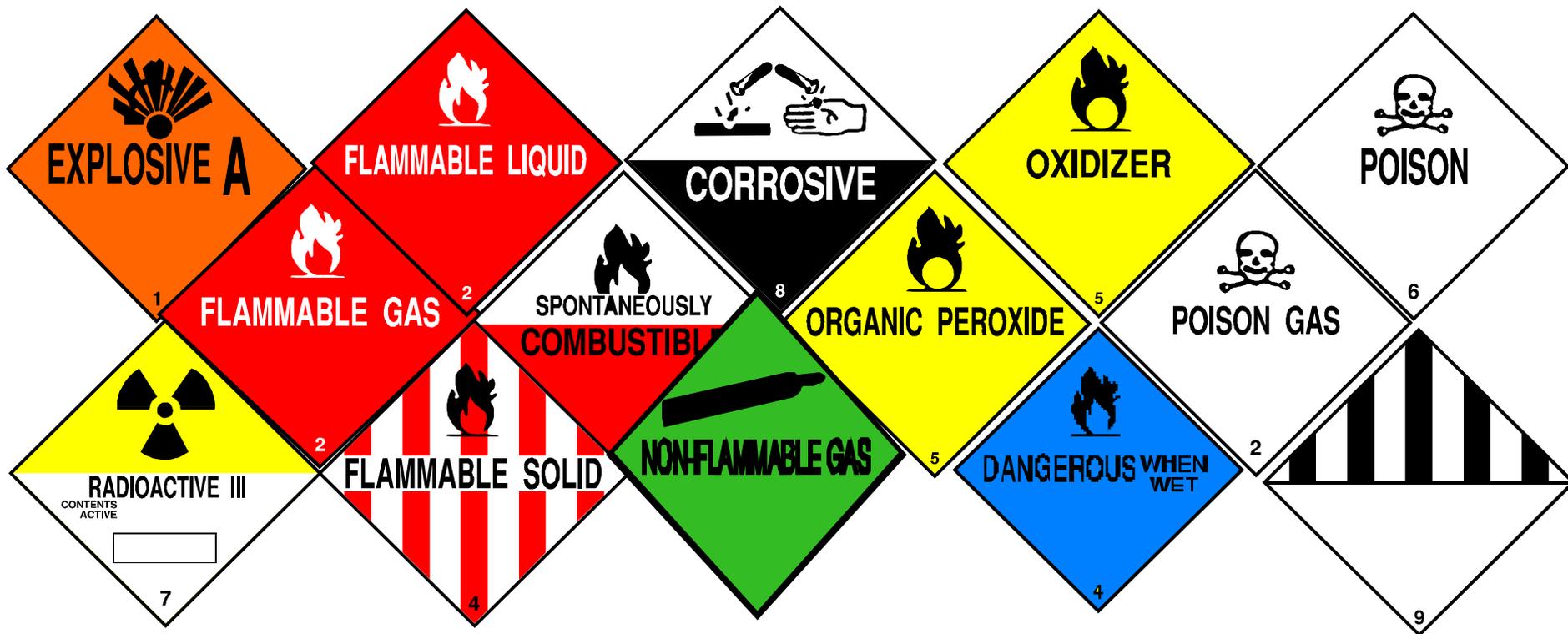
---

# Waste Identification

---

- Sort into compatible hazard classes
  - Corrosive – acid
  - Corrosive – base
  - Neutral – Flammable, poison
  - Oxidizers – separate acid, base, ad neutral
  - Others – e.g. water reactives,

# DOT Hazard Class Label(s)



# Common Signal Words for Oxidizers

## Oxidizer Identification

**Store away from other materials**

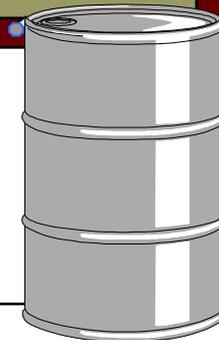
Oxidizer Key Word Prefix or Suffix	Examples
-ate  -ite -peroxide -peroxy	Ammonium nit <u>rate</u> Potassium permangan <u>ate</u> Calcium hypochlor <u>ite</u> Methyl ethyl ketone <u>peroxide</u>

# Hazardous Wastes Label

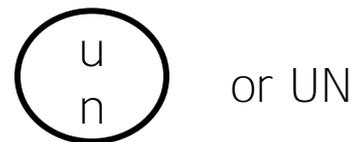
---

- Every container has:
  - “Hazardous Waste”
  - Composition and physical state
  - Hazardous property(ies)
    - e.g. Ignitable, reactive, corrosive
  - Name and address of generator
  
- Few exceptions

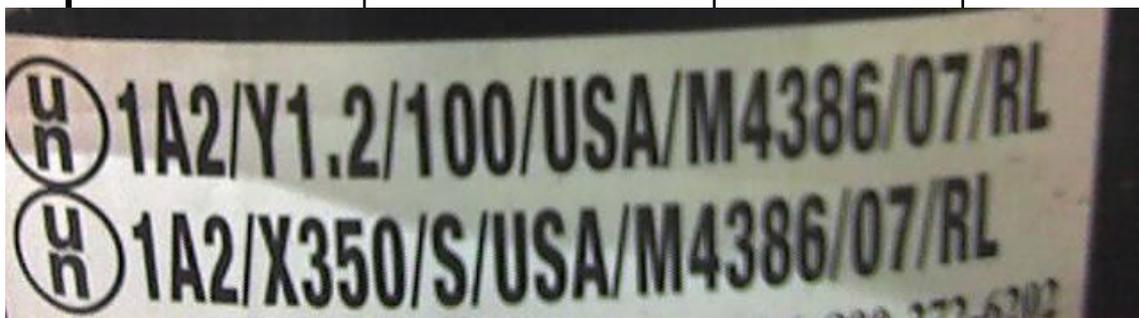
# Package Certification



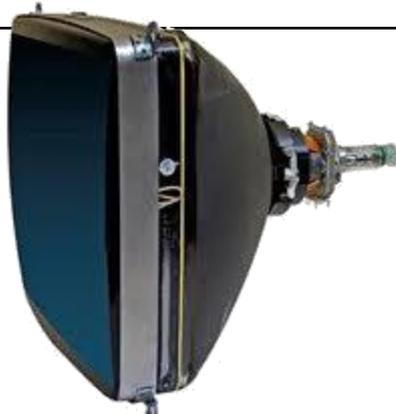
## □ United Nations marking



Container type	Material	Covering	Packing Group	Weight limit	Physical State
1 = drum 4 = box 6=composite	A = steel B = aluminum G = fiberboard H = plastic N = Metal	1 = closed 2 = open	X = I,II,III Y = II,III Z = III	Decimal = specific gravity OR Kilograms (including drum)	L = Liquid S = Solid



# Electronics/CRT Differences

Electronic Devices	CRT	CRT Glass
		
<h2>Storage Label</h2>		
Universal Waste—Electronic Device(s)	Universal Waste—CRT(s)	Universal Waste—CRT Glass

# Universal Waste Label

## UNIVERSAL WASTE -

BATTERIES



CRTs



CRT Glass

ELECTRONIC DEVICES



LAMPS

MERCURY CONTAINING EQUIPMENT

Accumulation Date: \_\_\_\_\_

# Label - Used Oil

- “Used Oil”
- “Hazardous Waste”
- Accumulation Date
  - Shipment label not needed

**HAZARDOUS WASTE**

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

CA WASTE NO. 221 E.P.A. WASTE NO. N/A

D.O.T. PROPER SHIPPING NAME Non-RCRA Hazardous Waste Liquid UN OR NA NO. N/A

GENERATION NAME Anarchist, Inc.

ADDRESS 1976 Bad Stuff Lane

CITY Everywhere STATE CA

E.P.A. ID. NO. CAH000123456

PHYSICAL STATE

LIQUID       SOLID       GAS

HAZARDOUS PROPERTIES

TOXIC       FLAMMABLE  
 CORROSIVE       REACTIVE

WASTE ACCUMULATION & PICK UP		
START	PICK UP	MANIFEST NUMBER
2/31/08	/ /	
/ /	/ /	
/ /	/ /	
/ /	/ /	
/ /	/ /	
/ /	/ /	
/ /	/ /	

CONTENTS: USED OIL

COMPOSITION: USED OIL

**HAZARDOUS WASTE HANDLE WITH CARE**

# Used Oil Filters

---

- “Drained used oil filters”
  - &Accumulation Date
- “Used oil and gasoline filters”
  - &Accumulation Date
- BTW – used oil filters are never empty

# Special Permits – get a copy

---



# Pick one?



???

**NON-HAZARDOUS WASTE**

This waste is not regulated by 40CFR Part 261  
but may be subject to Department of Transportation regulations.

Generator - Epa Id CAH 111 000 720

Phone

Proper D.O.T. Shipping Name

UNIVERSAL WASTE ELECTRONIC DEVICE(S)

Waste Categ: DIR01

Order:

Accumulation Date: 12/4/10

Profile#: WCRRUWASTE-01 Doc#:

Manifest:

Line#:

WCN: UNIVERSAL WASTE ELECTRONIC EQUIPMENT FOR RECYCLE

Hazardous Properties: Toxic

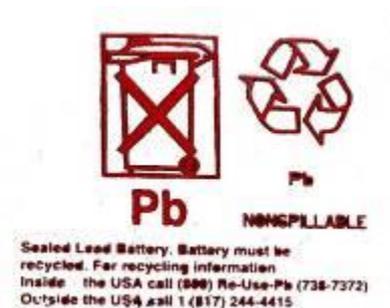
Physical State: Solid

# CAUTION

## Lead Acid Batteries



- ❑ Lead-acid storage battery that are cracked, caps are missing, or otherwise damaged shall be stored and transported in a nonreactive, structurally secure, closed container capable of preventing the release of acid and lead. (Title 22, Section 66266.81)
- ❑ Keep away from alkaline batteries
- ❑ Transport 10 or fewer
  - No Bill of Lading



# Battery Storage

---



STATE OF CALIFORNIA  
ENVIRONMENTAL PROTECTION AGENCY  
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

In the Matter of:

City of Glendale, California  
Public Works Department  
Integrated Waste Management  
Division  
548 W. Chevy Chase Drive  
Glendale, California 91204-1814

ID No. CFI000000002

Docket HWCA 20071363

CONSENT ORDER

Health and Safety Code  
Section 25187

- ❑ \$13,000 Penalty
- ❑ Failure to immediately clean up and contain
- ❑ Manage residue
- ❑ Lack training







06.21.2006 11:23





# Post- Bulking Exercise





Flammable Paint Storage Container, Interior









DANGER

2 3 3  
ENVIRONMENTAL HAZARD

HAZARDOUS WASTE  
AREA UNAUTHORIZED  
PERSONNEL  
KEEP OUT

ZONA DE RESIDUOS  
PELIGROSOS PROHIBIDA  
LA ENTRADA DE PERSONAS  
NO AUTORIZADAS



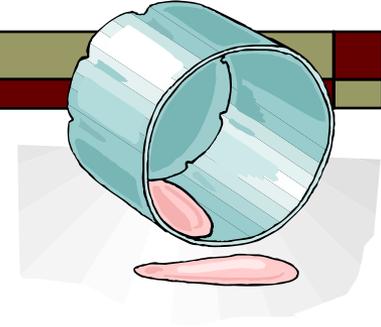
# Toxic Solid ?



# Hazardous Waste ??



# “Empty” means:



- ❑ No hazardous material can be poured or drained ... when the container or inner liner is held in any orientation (e.g., tilted, inverted, etc.)
- ❑ No hazardous material remains in or on the container that can feasibly be removed by physical methods (A thin uniform layer or dried material or powder is considered acceptable)
- ❑ Emptied household hazardous material and pesticide container, of five gallon or less in capacity  
*(Not including used oil filters and PCB containers)*
- ❑ A compressed gas cylinder is exempt from regulation ... when the pressure in the container approaches atmospheric pressure.
- ❑ Aerosol containers are exempt from regulation ... if the aerosol container was emptied of the contents and propellant to the maximum extent practical under normal use

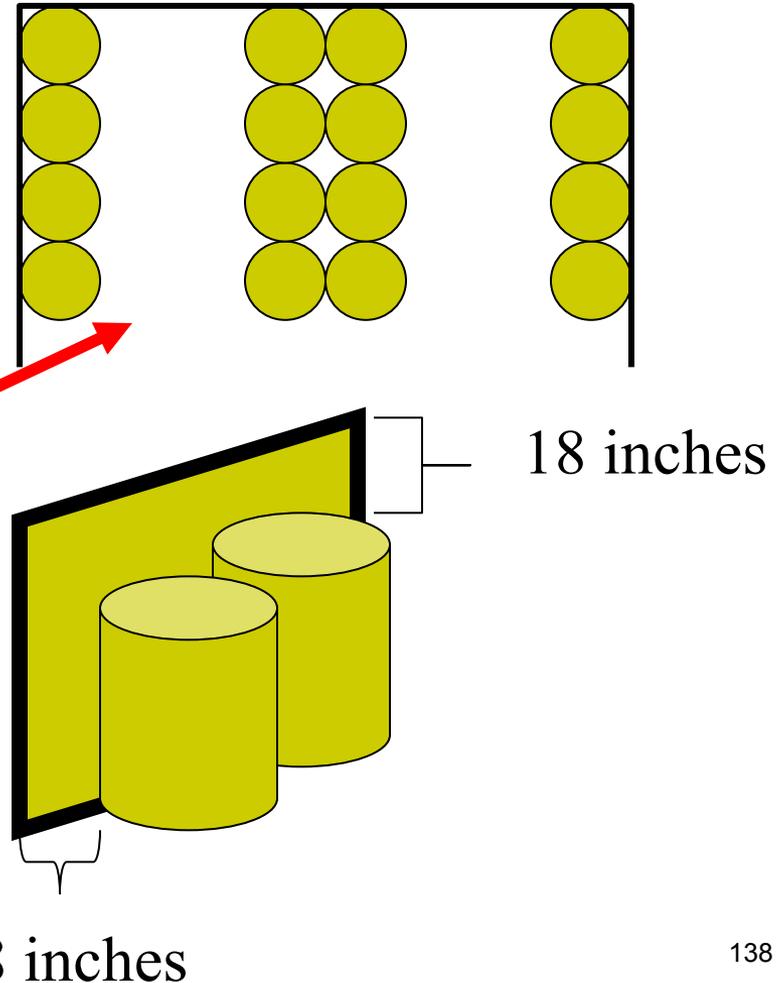
# Container Storage

---

- Containers closed when not in use
- Container compatible with waste liner allowed
  - e.g. plastic liner with alkaline batteries
- Containers holding ignitable or reactive waste shall be located at least 15 meters (50 feet) from the facility's property line

# Container Storage

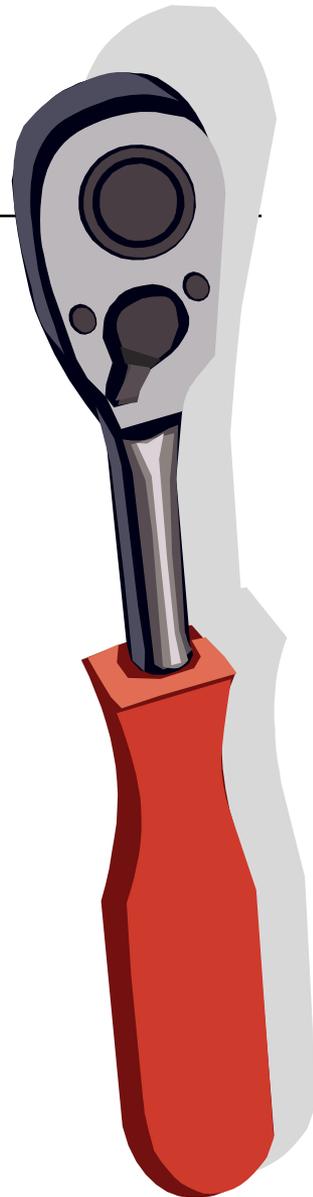
- ❑ Aisle space not specified
- ❑ Labels must be visible
- ❑ Able to inspect container for leakage
  - Typically 24 to 48 inches
- ❑ Separation wall
  - 18 inches top
  - 18 inches front



# Drum Closure

---

- ❑ Close drum using torque wrench
  - Rings bolt and bungs
- ❑ Performance test to prevent leakage
- ❑ Drum supplier provides instructions
- ❑ Train workers on use
- ❑ Use calibrated torque wrench
- ❑ Get updates instructions annually
- ❑ Reject containers that do not properly close
- ❑ 49 CFR §178.2 (c)



# Reuse/Material Exchange

---

- The public agency operating a HHW program shall
  - Determine which reusable household hazardous products or materials are suitable and acceptable for distribution to the public in accordance with a quality assurance plan prepared by the public agency.
  - Instruct the recipient to use the product in a manner consistent with the instructions on the label.
- Business or employer recipient shall be responsible for obtaining MSDS
- HSC 25218.12.

# Waste Reuse/Exchange

---

- ❑ No recalled, canceled or suspended materials
- ❑ Inspect containers for integrity and contents
- ❑ Sign form/liability
- ❑ May have fee
- ❑ Track amounts
- ❑ Limit access?



# Pool Chemicals for Reuse



# Facility Inspection

## Temporary

**PERMIT BY RULE  
TEMPORARY HOUSEHOLD HAZARDOUS WASTE COLLECTION FACILITY  
INSPECTION CHECKLIST**

Collection Facility Name: \_\_\_\_\_ EPA ID No.: CAH \_\_\_\_\_  
Collection Address: \_\_\_\_\_  
City: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Sponsor Agency: \_\_\_\_\_  
Sponsor Agency Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_  
Contractor Name: \_\_\_\_\_  
Contractor Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_  
Date Inspected: \_\_\_\_\_ Inspection Agency: \_\_\_\_\_  
Lead Inspector: \_\_\_\_\_ Phone: \_\_\_\_\_

**INDEX**

	Page
A. SUBMITTAL .....	2
B. DOCUMENTATION REQUIREMENTS .....	2
C. CESQG WASTE ACCEPTED AT FACILITY .....	4
D. WALKTHROUGH OBSERVATIONS .....	4

## Permanent

**PERMIT BY RULE  
PERMANENT HOUSEHOLD HAZARDOUS WASTE COLLECTION FACILITY  
INSPECTION CHECKLIST**

Collection Facility Name: \_\_\_\_\_ EPA ID#: CAH \_\_\_\_\_  
Collection Facility Address: \_\_\_\_\_  
City: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Sponsor Agency: \_\_\_\_\_  
Sponsor Agency Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_  
Contractor Name: \_\_\_\_\_  
Contractor Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_  
Date Inspected: \_\_\_\_\_ Inspection Agency: \_\_\_\_\_  
Lead Inspector: \_\_\_\_\_ Phone: \_\_\_\_\_

**INDEX**

	PAGE
A. SUBMITTALS .....	2
B. CONTAINMENT .....	2
C. DOCUMENTATION REQUIREMENTS .....	3
D. CESQG WASTES ACCEPTED .....	6
E. WALK THROUGH OBSERVATIONS .....	7

# Inspection

---

- Inspect area and drums weekly
- Maintain written inspection log
  - Name of the inspector.
  - Date of the inspection.
  - Condition of all waste containers.
  - Description of any problem noted during the inspection and action taken to fix it.



# Containers, Drums

---

- ❑ Containers must have tight-fitting lids that are
- ❑ Kept closed except when wastes are being added or removed.
  - Funnel must be removed or be equipped with a valve or cover to prevent leakage if drum turned over.
- ❑ DOT Certified for Hazardous Wastes
- ❑ Inspected weekly



# Aboveground Storage Tanks

---

- Inspect daily
  - No apparent structural defects, or deterioration
  - No severe rusting,
  - No leaking
  - Correct label
- Certification
- Inspection under CUPA Authority



# Inspection – How Many Issues?

---



SF.20239  
INORGANIC BASE

UN1993

OPEN: 1-3-09 CCSEF-HHW CF

MANA 001279801JK

PROD 5376-8505

LINE 2 9B1

P.O.# N1052

CLEAN  
HARBOR





FLAMMABLE  
POISON

100% RESISTANCE

GULLOCH  
Poulsen

BASE

HAZARDOUS WASTE





1544

Red  
Phosphorus

HAZARDOUS  
STATE AND FEDERAL LAWS  
IF FOUND CONTACT THE SHIPPER  
US DEPARTMENT OF TRANSPORTATION  
CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS  
PROPER USE OF  
RECEPTOR \_\_\_\_\_  
HAZARDOUS MATERIALS  
Packaging Detail  
Special instructions  
CITY San Francisco  
ON 07/11/06  
ACCUMULATION  
START DATE 12-21-06  
SF 28.306 HAZARDOUS  
CONTAINS HAZARDOUS

HAZAR  
RED  
OR  
HAZAR





COMP  
PLEASE  
LEVEL  
LOAD

**CAUTION**  
HAZARDOUS WASTE  
STORAGE AREA  
UNAUTHORIZED PERSONS  
PROHIBITED

**CUIDADO**  
ZONA DE RESIDUOS  
DAÑEROSOS PELIGROSOS  
LA ENTRADA  
A ESTAS NO AUTORIZADA

**EMERGENCY FIRST AID**  
CALL 911 IMMEDIATELY FIRST AID ACTIVES

1. Stop the bleeding	1. Control the bleeding
2. Wash the wound	2. Clean the wound
3. Cover the wound	3. Dress the wound
4. Bandage the wound	4. Bandage the wound
5. Elevate the limb	5. Elevate the limb
6. Apply pressure	6. Apply pressure
7. Seek medical attention	7. Seek medical attention

EMERGENCY  
BLANKET

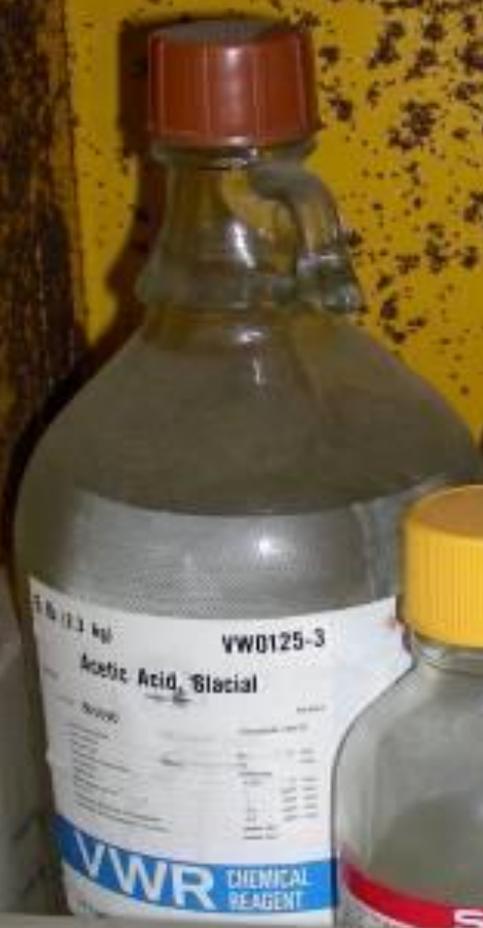


**CAUTION**  
DOOR OPENS  
OUTWARD

== **NO** ==  
**SMOKING**

== **NO** ==  
**SMOKING**







# Record Keeping

---

- ❑ Permits/approvals
- ❑ Shipping records
- ❑ Inspection records
- ❑ Training records
- ❑ Incident log/records
  
- ❑ Available for inspection

# Record Retention

---

- Regulatory
  - Incidents – 3 years
  - Manifests – 3 years
  - Universal waste – 3 years
  - HazMat Bill of Lading – 2 years
  
- Reality
  - Forever



# *Do You Know Where Your Waste Goes*

---

Rob D'Arcy  
Hazardous Materials Program Manager  
Santa Clara County  
Department of Environmental Health

Special thanks to Ed Ramos  
Sr. Hazardous Materials Specialist



# Manifest Tracking Flow

Gen  
Copy  
#6 for  
DTSC



Transporter



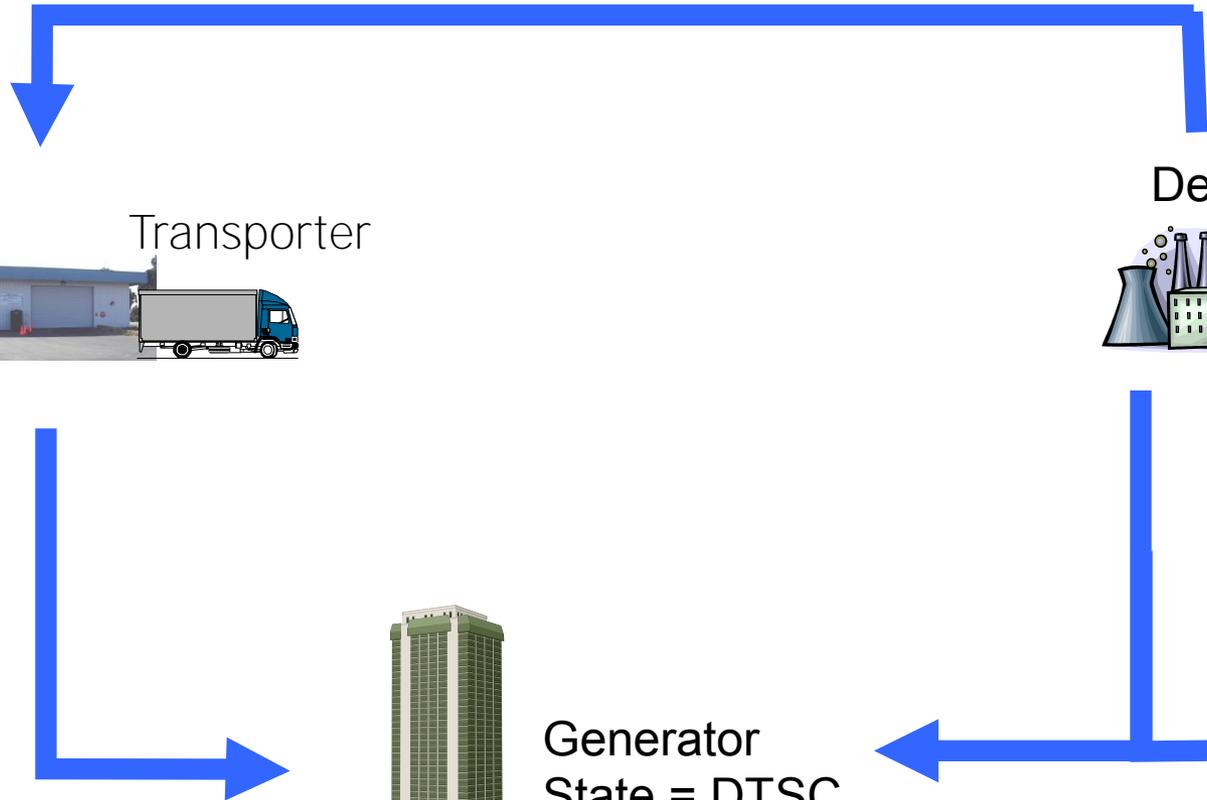
Designated Facility  
TSDF



Generator  
State = DTSC  
"ADDRESS"

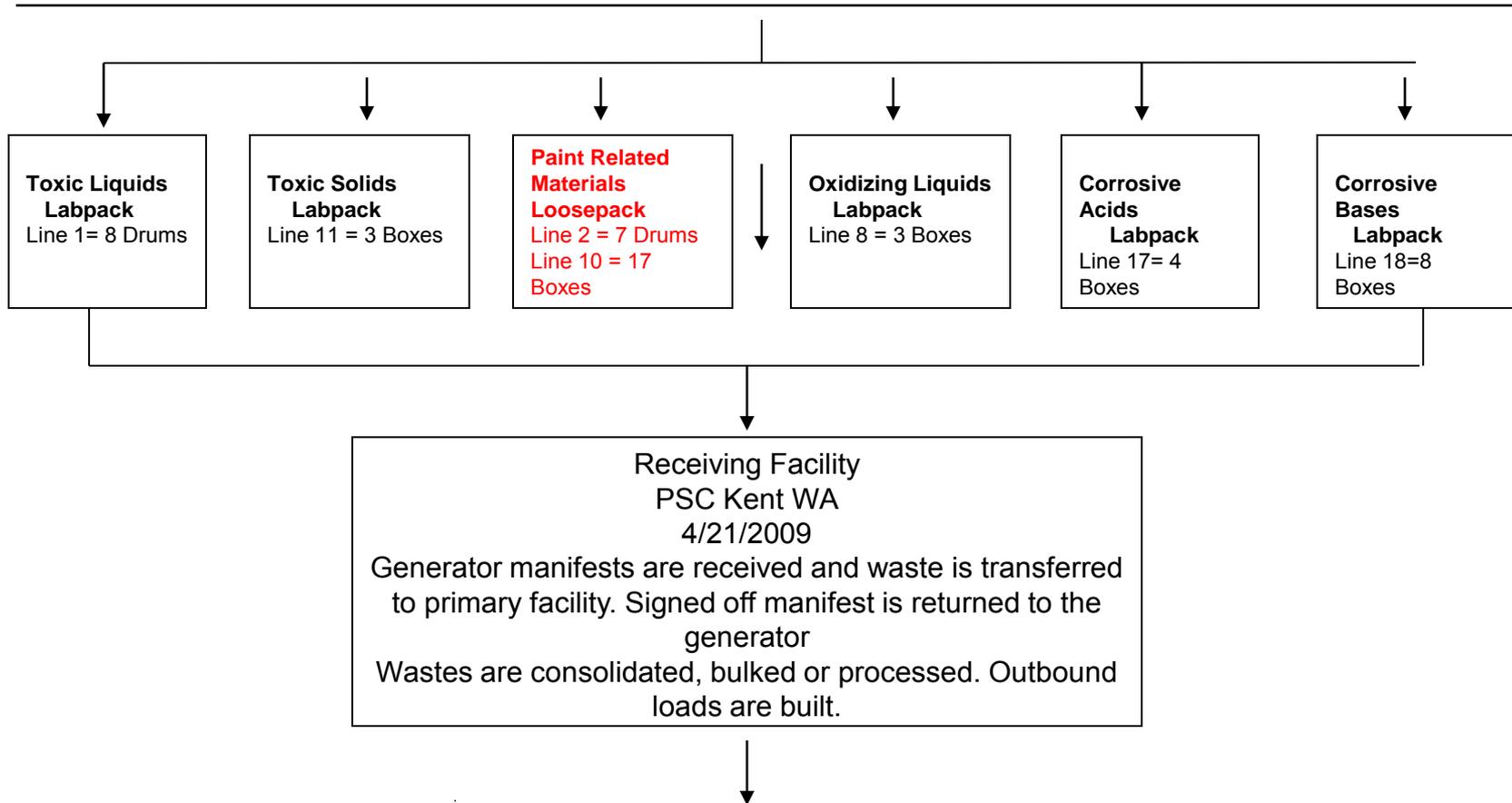


Destination State



SCC HHW Temporary  
Collection Event  
Los Altos Hills

Manifest #005520014JJK  
Shipping Date - 4/11/2009



Please print or type. Do not use for use of title (13-c)(1) (2)(vii)(B).

1. Importer Name and Address LAWRENCE HAZARDOUS WASTE SERVICES 10001 13001240		2. Reg. No. 3		3. Emergency Response Phone (877) 597-2668		4. Manifest Number 005520014 JJK			
5. Consignee Name and Address CITY OF SANTA CLARA DEPT. OF WORKS (HSE PROGRAM) 1515 HUNTER DRIVE SUITE 1 300 WEST 20 DRIVE SANTA CLARA CA 95112 (408) 359-1972				6. Consignee Address (Use for 7(a) only) 600 ALTO HILLS COLLEGE (FABRICATION) 14745 DE HURST AVENUE LOS ALTO HILLS CA 94031 (408) 359-1972				7. EPA ID Number C90000160012	
8. Facility Name 21st CENTURY ENVIRONMENTAL MANAGEMENT OF MEXICO, LLC						9. EPA ID Number U.S. EPA Number			
10. Consignee's Description						11. EPA ID Number			
12. Consignee's Facility Name and Address ENVIRONMENTAL MANAGEMENT, LLC, 21ST CENTURY 20235 17TH AVENUE SOUTH PHOENIX ARIZONA 85024						13. EPA ID Number WR0991281767			
14. Facility Phone 602-991-2668 (253) 472-9630						15. EPA ID Number			
16. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group, if any)						17. Quantity	18. Unit	19. U.S. DOT	20. Waste Code
UN	HA	PL	PK	DR	LI	SL	TO	TD	TD
X					8	DRM	3000	P	112
X					7	DRM	1400	P	612
X					1	DRM	250	P	612
X					1	DRM	50	P	612
17. Special Handling Instructions (including instructions for disposal)									
(1) SCORCHING-88 - SSC(141) CARPACE-FLUORIDES, (2) SCORCHING-88 - SSC(141) SCORCHING OIL BASK (3) SCORCHING-88 - SSC(141) SCORCHING, POWDERED (4) SCORCHING-88 - SSC(141) SCORCHING SOLIDS, BARGE WAGON TO EXPORT-HOUSEHOLD-WASTE/RECYCLED WASTE-RECYCLED (5)									
18. GENERATOR/PRODUCER'S CERTIFICATION: I hereby certify that the contents of this container are as they are actually described above by the proper shipping name, hazard class, package mark, and label(s) displayed, and are in all respects as represented on the manifest and bill of lading. I warrant that the contents of this container conform to the terms of the bill of lading. I warrant that the contents of this container conform to the terms of the bill of lading. I warrant that the contents of this container conform to the terms of the bill of lading. I warrant that the contents of this container conform to the terms of the bill of lading.									
19. Generator/Producer Name Ed Ramo						20. Date 11/11/09		21. Signature Ed Ramo	
22. Transporter Name Charles Harris						23. Date 11/11/09		24. Signature Charles Harris	
25. Description						26. Description of container type		27. Description of container type	
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91. Description of container type						92. Description of container type		93. Description of container type	
92. Description of container type						93. Description of container type		94. Description of container type	
93. Description of container type						94. Description of container type		95. Description of container type	
94. Description of container type						95. Description of container type		96. Description of container type	
95. Description of container type						96. Description of container type		97. Description of container type	
96. Description of container type						97. Description of container type		98. Description of container type	
97. Description of container type						98. Description of container type		99. Description of container type	
98. Description of container type						99. Description of container type		100. Description of container type	



**Toxic Liquids  
Bulked**

PSC Manifest #  
001359931JJK  
Line # 1  
Shipment Date  
4/28/2009  
Clean Harbors  
Aragonite, UT

**Toxic Solids,  
Liquids Bulked**

PSC Manifest #  
005946501JJK  
Line #1  
Shipment Date  
5/14/2009  
Clean Harbors  
Aragonite, UT

**Paint Related  
Materials  
Bulked Drums**

Inbound PSC  
Manifest to  
Tacoma, WA  
for tank blending  
PSC Mnfst#  
001359906JJK  
Line #1  
Shipped  
4/24/2009  
Received  
4/24/2009

**Oxidizing  
Liquids Bulked**

Inbound PSC  
Manifest to  
Fernley Nevada  
for treatment  
PSC Mnfst #  
001359955JJK  
Line #17  
Shipped  
5/01/2009  
Received  
5/06/2009

**Corrosive  
Acids  
Labpack**

**PSC Kent , WA  
Facility**  
Received waste  
4/21/2009  
Final Processing  
6/05/2009

**Corrosive  
Bases  
Labpack**

**PSC Kent WA  
Facility**  
Received waste  
4/21/2009  
Final Processing  
8/06/2009

2

37591

Use this form to report information required by 40 CFR 261.12 (a)(2) (b)(2) (b)(3) (b)(4) (b)(5) (b)(6) (b)(7) (b)(8) (b)(9) (b)(10) (b)(11) (b)(12) (b)(13) (b)(14) (b)(15) (b)(16) (b)(17) (b)(18) (b)(19) (b)(20) (b)(21) (b)(22) (b)(23) (b)(24) (b)(25) (b)(26) (b)(27) (b)(28) (b)(29) (b)(30) (b)(31) (b)(32) (b)(33) (b)(34) (b)(35) (b)(36) (b)(37) (b)(38) (b)(39) (b)(40) (b)(41) (b)(42) (b)(43) (b)(44) (b)(45) (b)(46) (b)(47) (b)(48) (b)(49) (b)(50) (b)(51) (b)(52) (b)(53) (b)(54) (b)(55) (b)(56) (b)(57) (b)(58) (b)(59) (b)(60) (b)(61) (b)(62) (b)(63) (b)(64) (b)(65) (b)(66) (b)(67) (b)(68) (b)(69) (b)(70) (b)(71) (b)(72) (b)(73) (b)(74) (b)(75) (b)(76) (b)(77) (b)(78) (b)(79) (b)(80) (b)(81) (b)(82) (b)(83) (b)(84) (b)(85) (b)(86) (b)(87) (b)(88) (b)(89) (b)(90) (b)(91) (b)(92) (b)(93) (b)(94) (b)(95) (b)(96) (b)(97) (b)(98) (b)(99) (b)(100)

959/44

37591

UNIFORM REPORTING AND RECORDING INFORMATION: 1. Generator ID Number: 959/44 2. EPA Region: 001359906 JJK 3. Reporting Period (Month/Year): (07/2) 07-2008

4. Generator Name and Address: BURLINGTON ENVIRONMENTAL, LLC 2024 17TH AVE S, BURLINGTON ENVIRONMENTAL, LLC NEPT 04 30007-0006 (253)972-6030

5. Generator ID Number: MAN009001783

6. Transferor Name and Address: BURLINGTON ENVIRONMENTAL, LLC 1701 East Alexander Avenue, Tacoma, WA 98421 (252) 627-7566

7. Transferor Name: BURLINGTON ENVIRONMENTAL, LLC

8. Designated Facility Name and Address: BURLINGTON ENVIRONMENTAL, LLC TACOMA PLANT 1701 East Alexander Avenue, Tacoma, WA 98421 (252) 627-7566

9. Designated Facility ID Number: MAN020207945

10. Waste Characteristics Table:

Waste ID	Waste Name	K1 Codes		K2 Code	K3 Code	Waste Codes		
		No.	Type			0001	0002	0003
001	DRYVA GASE FURNACE LIGHTING, K03, TOLUENE, XYLENE & PAH	1	TT	3.301	6	0001	0002	0003
002	BRINDS - 300 LB					0004	0007	0008

11. Additional Information: (1) BURNT-OIL - EAST125) INHUMIDIFY - HIMP

12. Generator Representative: Cassandra Gallegos, Signature: [Signature], Date: 14 Jul 2008

13. Transferor Representative: [Signature], Date: 14 Jul 2008

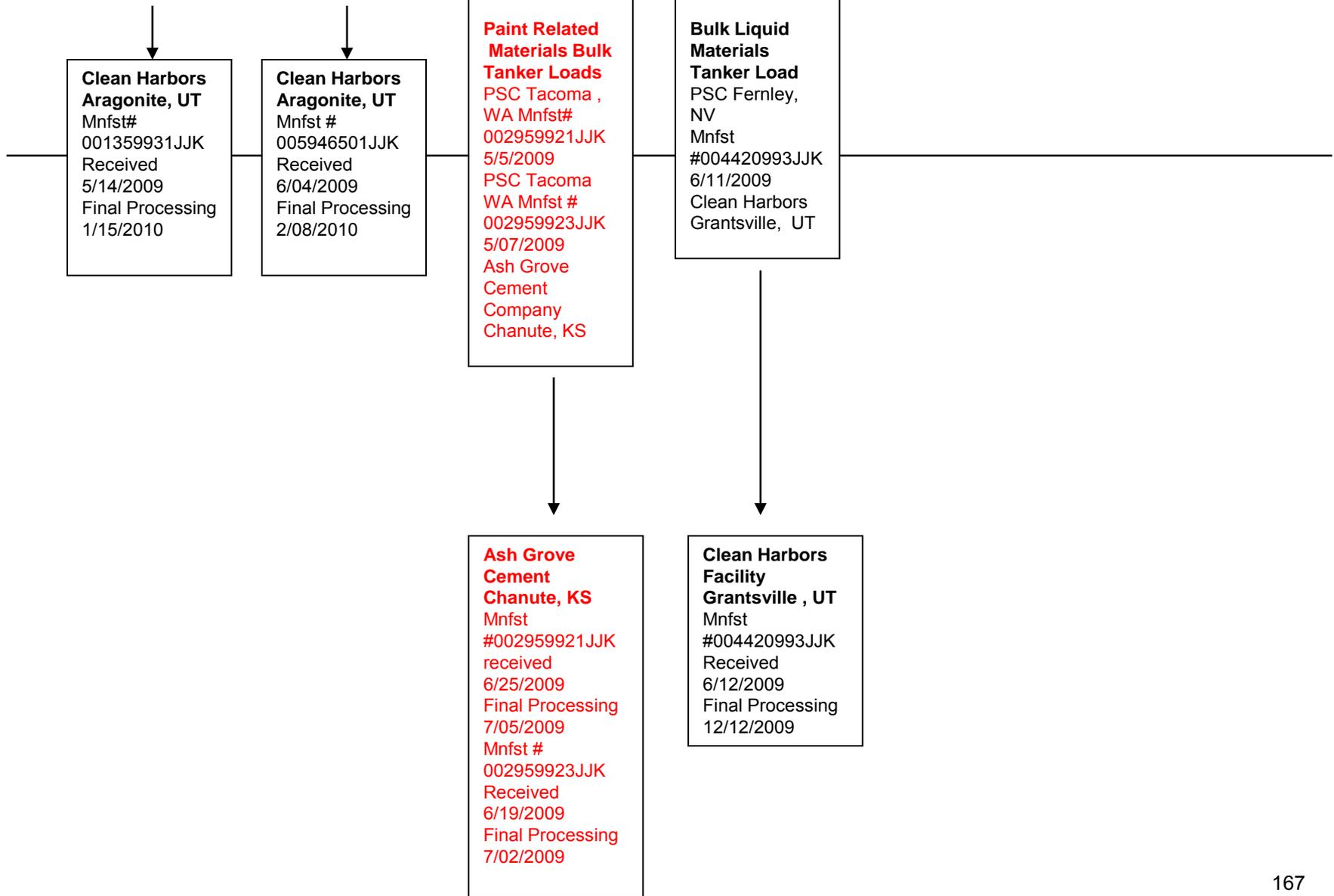
14. Designated Facility Representative: [Signature], Date: 14 Jul 2008

15. Hazardous Waste Report Management: [ ] Other [ ] Incineration [ ] Land Treatment [ ] Landfill [ ] Off-site [ ] Other

16. Signature of Designated Facility Representative: [Signature], Date: 14 Jul 2008

EPA Form 3522-1 (Rev. 3/99) (Instructions are on back)

DESIGNATED FACILITY TO GENERATOR







21137

AGRI GROVE CEMENT COMPANY  
P. O. Box 612  
Chanute, KS 66720  
(620) 431-4500  
EPA ID No. KSD0312063101

### CERTIFICATE OF DISPOSAL

This is to certify that the  Hazardous Waste Derived Fuel  Solid Waste Derived Fuel

which was shipped by

**BURLINGTON ENVIRONMENTAL**  
1701 E. ALEXANDER AVE.  
TACOMA, WA 98421  
EPA ID NO. 000257045

on May 5, 2008 under manifest number(s) 00295982133K K90695  
received at our facility on June 25, 2008 was disposed of via high temperature thermal recycling  
in our cement kiln on July 5, 2008 in compliance with all state and federal laws including  
CFR 40 Parts 260 through 299



Randy G. Pryor, Plant Manager

21137

21138

ASH GROVE CEMENT COMPANY  
P. O. Box 519  
Chard, OH 43024  
(620) 431-4500  
EPA ID No. K6D031203318

### CERTIFICATE OF DISPOSAL

I hereby certify that the (X) Liquid Waste Derived Fuel ( ) Solid Waste Derived Fuel  
which was shipped by

BURLINGTON ENVIRONMENTAL  
1701 E ALEXANDER AVE  
TACOMA, WA 98421  
E.P.A. #WAD 020257345

on May 7, 2009 under manifest number(s) 002955923JJK K90659  
received at our facility on June 19, 2009 was disposed of via high temperature thermal recycling  
in our permit #100 on July 2, 2009 in compliance with all state and federal laws including  
RCRA 40 Parts 260 through 266

*Randy G. Fryer*  
Randy G. Fryer, Plant Manager

0017 5



# CERTIFICATE OF TREATMENT, RECYCLING, AND/OR DISPOSAL

Generator: 130/23 - LOS ALTOS HILLS COLLEGE  
 12345 E. MONTE AVENUE  
 LOS ALTOS HILLS CA, 94022  
 EPA ID: CA-111001283

Facility: BURLINGTON ENVIRONMENTAL, L.L.C. KENT  
 20245 77TH AVENUE SOUTH  
 KENT WA, 98032  
 EPA ID: WAD991281757

Manifest #: 005320014JJK  
 Waste Receipt #: KNT-5755N  
 Date Received: 04/21/2009

Line Profile	Material Description	Treatment/Disposal Description	Final Treatment/Disposal Facility	Final PSC Manifest	Final Date Shipped
1 900CHW310-00	FLAMMABLE LIQUIDS, TOXIC, N.O.S. (ARSENIC, PETROLEUM DISTILLATE)	H040 INCINERATION - THERMAL DESTRUCTION OTHER THAN USE AS A FUEL	CLEAN HARBORS ARAGONITE, L.L.C.	001358601JJK 37670-KNT	04/20/2009
2 900CHW350-00	PAINT RELATED MATERIAL	H060 ENERGY RECOVERY AT THIS SITE - USE AS FUEL (INC. FUEL BLENDING)	ASH GROVE CEMENT  ASH GROVE CEMENT	002359211JJK 21137-TAC  002359225JJK 21138-TAC	1 05/05/2009  1 05/07/2009
3 900CHW230-00	COMPRESSED GAS, FLAMMABLE, N.O.S. (BUTANE, PROPANE)	H035 OTHER RECOVERY OR RECLAMATION FOR REUSES (SPECIFY IN COMMENTS)	UNIVERSAL CYLINDER EXCHANGE	37825-KNT	1A 03/22/2009
4 900CHW410-00	FLAMMABLE SOLIDS, ORGANIC, N.O.S. (CARBON, FLAKS)	H040 INCINERATION - THERMAL DESTRUCTION OTHER THAN USE AS A FUEL	HERITAGE WTI, INC.	005047882JJK 38866-KNT	4 11/08/2000
5 95002285-00	COMPRESSED GAS, N.O.S. (FROCK 12, FIRE EXTINGUISHERS)	H040 INCINERATION - THERMAL DESTRUCTION OTHER THAN USE AS A FUEL	IDAHO WASTE SYSTEMS	37626-KNT	2A 05/05/2003
6 900CHW520-00	OXIDIZING LIQUID, N.O.S. (POTASSIUM NITRATE, SODIUM NITRATE)		CLEAN HARBORS ENVIRON SERVICE	004420580JJK 02500	1 08/11/2009
8 900CHW210-00	AEROSOLS	H040 INCINERATION - THERMAL DESTRUCTION OTHER THAN USE AS A FUEL	SIAMI RECOVERY	000399917JJK 37553-KNT	1 04/24/2008
10 900CHW350-00	PAINT RELATED MATERIAL	H060 ENERGY RECOVERY AT THIS SITE - USE AS FUEL (INC. FUEL BLENDING)	ASH GROVE CEMENT  ASH GROVE CEMENT	002359921JJK 21137-TAC  002359922JJK 21138-TAC	1 05/08/2009  1 05/07/2009
11 900CHW510-00	TOXIC SOLID, ORGANIC, N.O.S. (ARSENIC, CARBARYL)	H040 INCINERATION - THERMAL DESTRUCTION OTHER THAN USE AS A FUEL	CLEAN HARBORS ARAGONITE, L.L.C.	005646501JJK 37866-KNT	1 05/14/2009
12 900CHW970-00	ASBESTOS	H132 LANDFILL OR SURFACE IMPONEMENT THAT WILL BE CLOSED AS LANDFILL	IDAHO WASTE SYSTEMS	37560-KNT	2B 04/27/2003
13 95006000-00	ORGANIC PEROXIDE TYPE E, LIQUID (METHYL ETHYL KETONE PEROXIDE, BENZYL PEROXIDE)	H040 INCINERATION - THERMAL DESTRUCTION OTHER THAN USE AS A FUEL	HERITAGE WTI, INC.	005918744JJK 38038-KNT	2 07/01/2009
15 900CHW430-00	WATER-REACTIVE SOLID, TOXIC, N.O.S. (ZINC PHOSPHIDE, CALCIUM CARBIDE)	H040 INCINERATION - THERMAL DESTRUCTION OTHER THAN USE AS A FUEL	HERITAGE WTI, INC.	006946744JJK 36008-KNT	1 07/01/2009
16 900CHW430-00	SELF-HEATING, SOLID, ORGANIC, N.O.S. (SODIUM SULFIDE, DIMETHYL ZINC)	H040 INCINERATION - THERMAL DESTRUCTION OTHER THAN USE AS A FUEL	HERITAGE WTI, INC.	005946744JJK 36236-KNT	14 07/01/2009
17 900CHW350-00	OPPRESSIVE LIQUIDS, N.O.S. (PHOSPHORIC ACID, HYDROCHLORIC ACID)	H077 OTHER CHEMICAL PRECIPITATION WITH OR WITHOUT PRE-TREATMENT	BE-TREAT/DISCHARGE TO POTW		08/05/2000



# Where Do Your Batteries Go?

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- PSC, Lighting Resources, AERC, Clean Harbors
- None of these companies recycle batteries



# Companies Processing Single-use and/or Rechargeable Batteries in North America (NEMA)

Company	Location	Main Consumer Batteries Processed	Other Consumer Batteries Processed	Batteries as a % of Total Feedstock
ToxCo	Trail, British Columbia	Lithium (all)	None	100%
Teck Ltd	Trail, British Columbia	Alkaline	Zinc Carbon, Zinc air button cell, silver oxide button cell	<5%
Xstrata	Sudbury, Ontario	Lithium-ion	Ni-MH	<25%
Battery Solutions	New Brighton, Michigan	Alkaline, Ni-MH, Lithium-ion	Alkaline, Zinc Carbon, Ni-Cd, Lithium Primary, Silver Oxide & other button cells	100%
ToxCo	Lancaster, Ohio	Nickel-Cadmium	Ni-MH, SSLA	>70%
Raw Materials Co.	Port Colborne, Ontario	Alkaline and Zinc Carbon	Lithium-ion, Zinc air button cell, silver oxide button cell, Ni-MH, Li-Poly	100%
Inmetco	Ellwood City, Pennsylvania	Nickel-Cadmium Ni-MH	Alkaline, Zinc Carbon	<10%
Kinsbursky Brothers	Anaheim, California	Alkaline (pending)	Lead-acid	Not <u>known</u>



13th Annual California Certified Unified  
Program Agency Conference





# HHW Bad Stuff

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Be Prepared for these!

NET CONTENTS 1 U.S. QUART

# CHLOR-THANE

## SPRAY CONCENTRATE

CONTAINS

Chlordane 25%	Malathion 12.5%
Lindane 5%	Organic Thiocyanates 1.5%

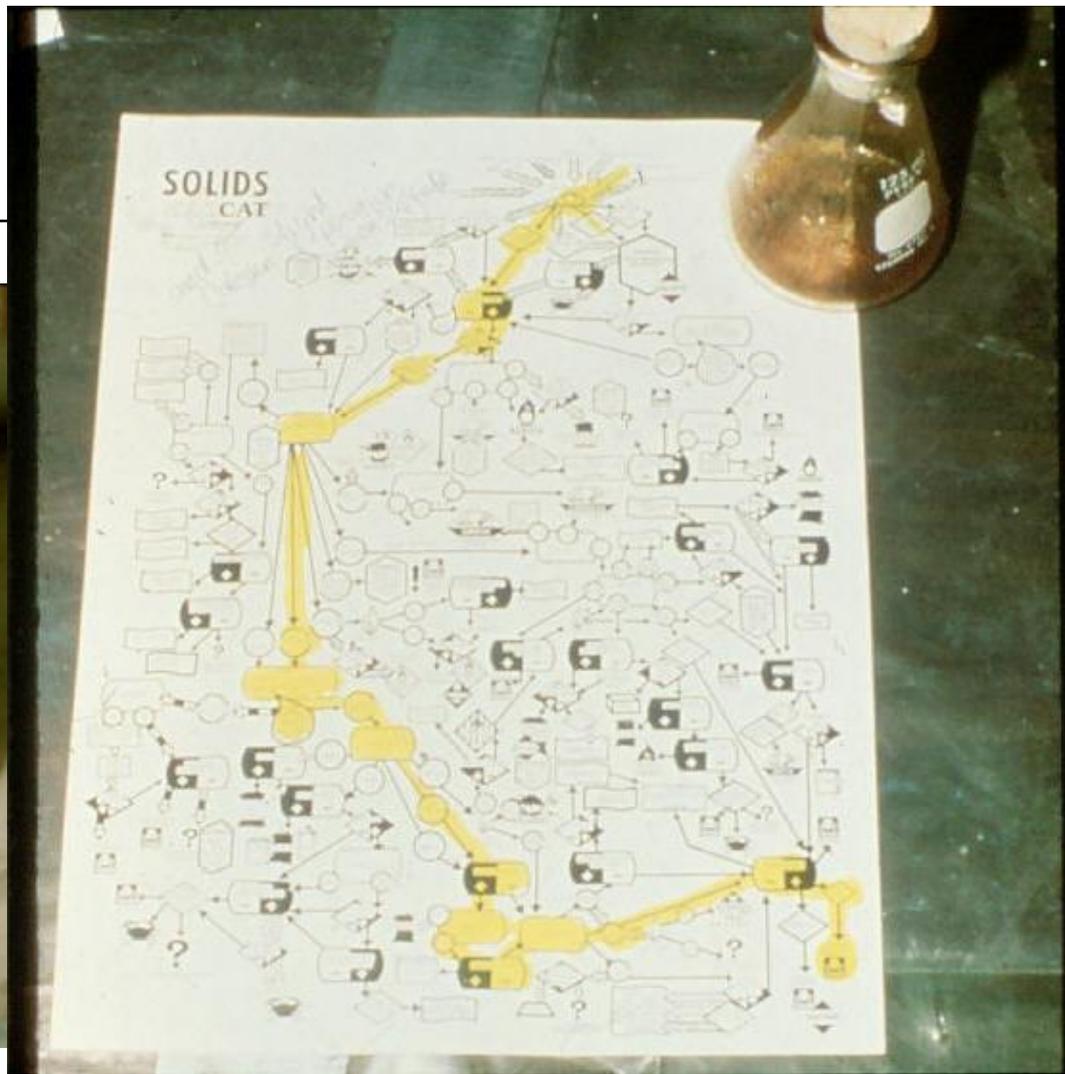
### KILLS

LAWN MOTH WORMS • ANTS • EARWIGS  
CUTWORMS • WIREWORMS • RED SPIDERS  
APHIS • MEALYBUGS • SOFT BROWN SCALE  
WHITE FLIES • ELM LEAF CATERPILLARS  
BLACK WIDOW SPIDERS • SAND FLEAS  
SCORPIONS





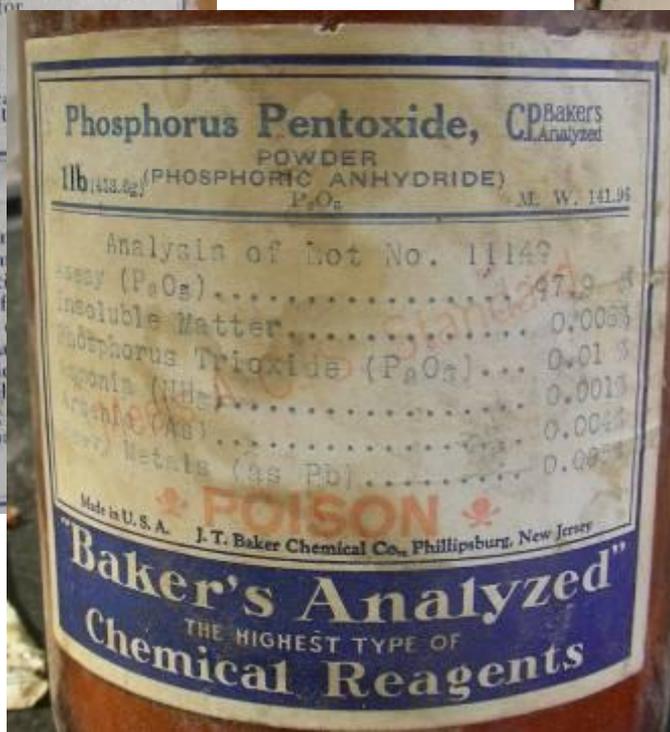
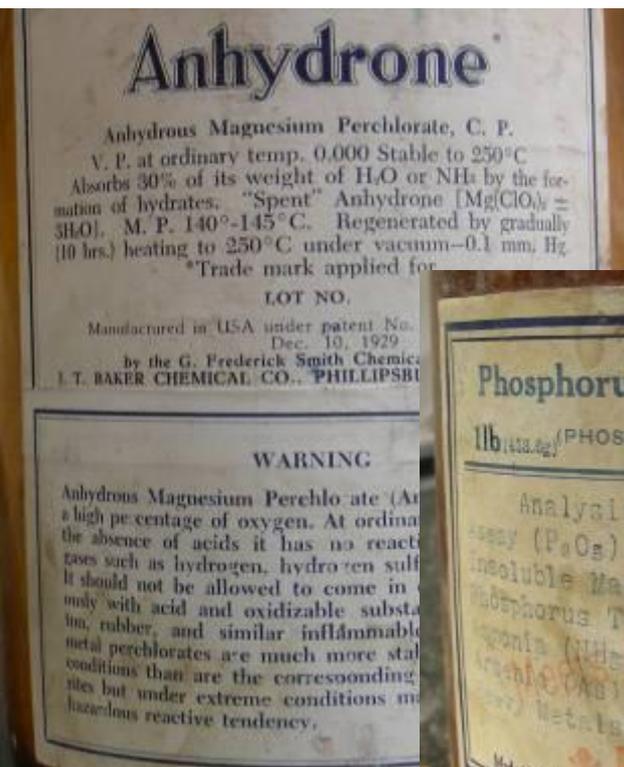




# Drug lab chemicals



# Lab Chemicals & Labels

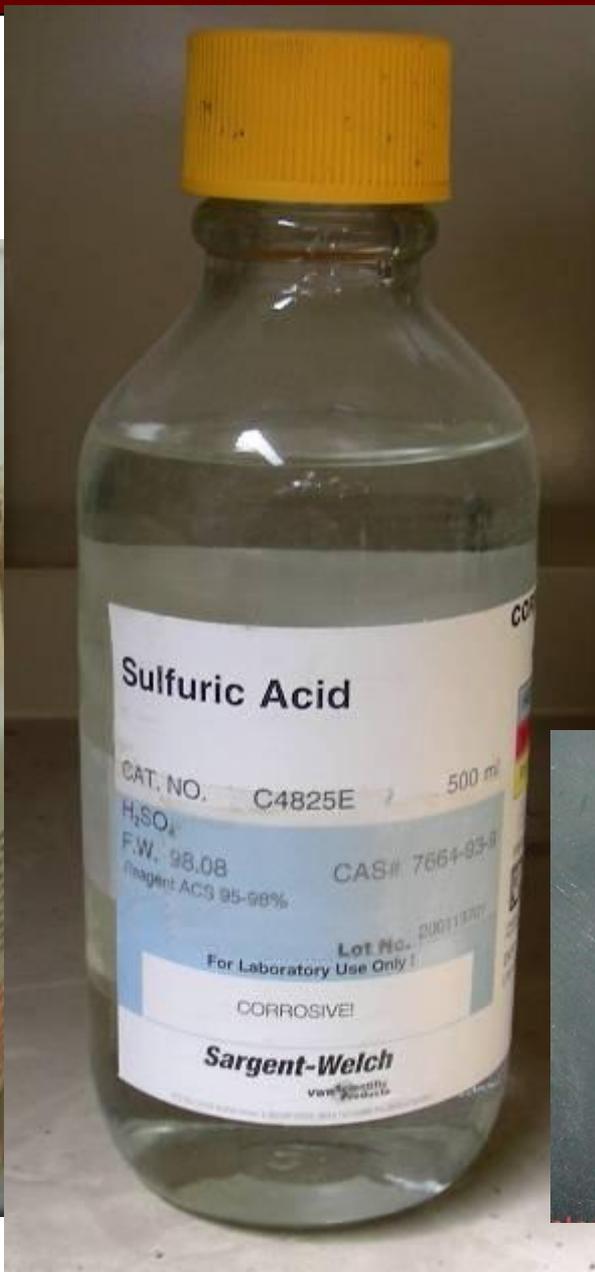




Brown Vapor



# Acid





UNRECOMMENDED ACID LIQUID SOLUTIONS & 100-11000, P01 (1)

**CORROSIVE**

8

UNRECOMMENDED ACID LIQUID SOLUTIONS & 100-11000, P01 (1)  
 PEPSI PEPSI COLA, INC.  
 CANTON, MASSACHUSETTS 01921

CONTAINER NOT FOR REUSE

**5 UNITS  
 PEPSI-COLA  
 FLAVORING COMPONENT NO. 1**

SEE SEPA LIFE  
 INSTRUCTIONS FOR  
 RECOMMENDED USE



CAUTION: STORE BELOW  
 50°C (125°F)

DO NOT FREEZE  
 MIX WELL  
 BEFORE USING

35005\*02

All flavor ingredients contained in this product are approved for use in a  
 regulation of the Food and Drug Administration or are listed as Generally  
 Recognized As Safe on a reliable published industry association list.

INGREDIENTS: CARAMEL, COCAINE, SUGAR,  
 TREATED WATER, PHOSPHORIC ACID,  
 CITRIC ACID AND NATURAL FLAVORS.

NET CONTENTS: 189.2 LITERS  
 (50.0 GALLONS)

**PC-1902**

BATCH 406P01

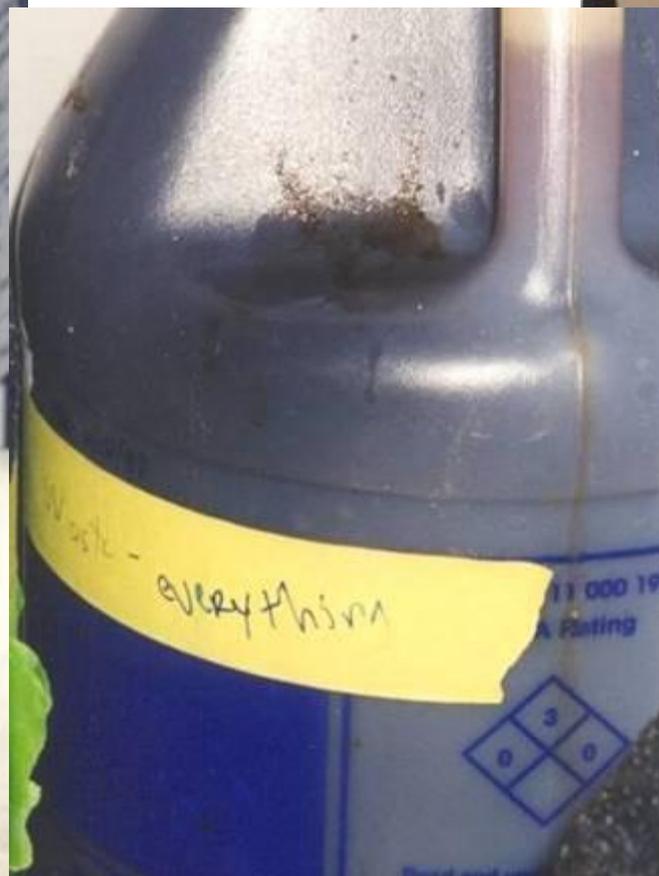
SHIP BY MAR. 18 2002

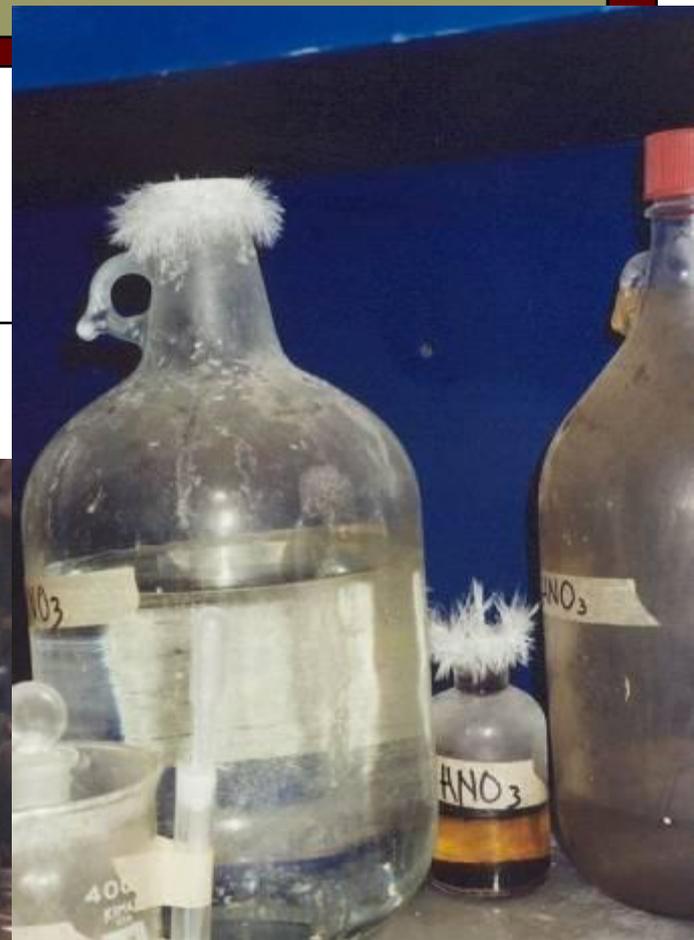
USE BY MAY. 17 2002



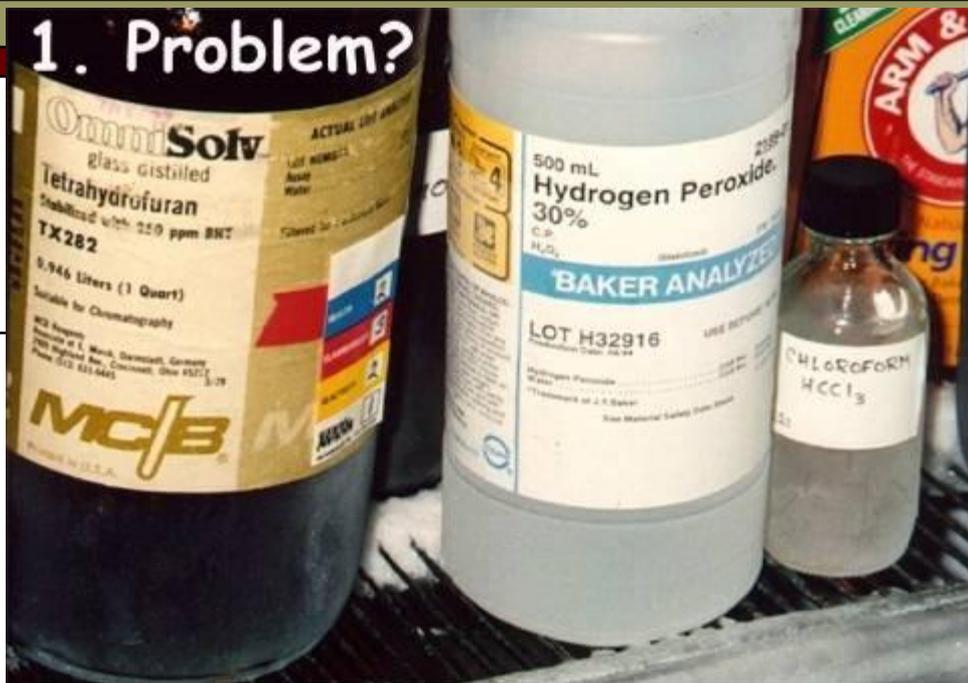
# Lab Chemicals



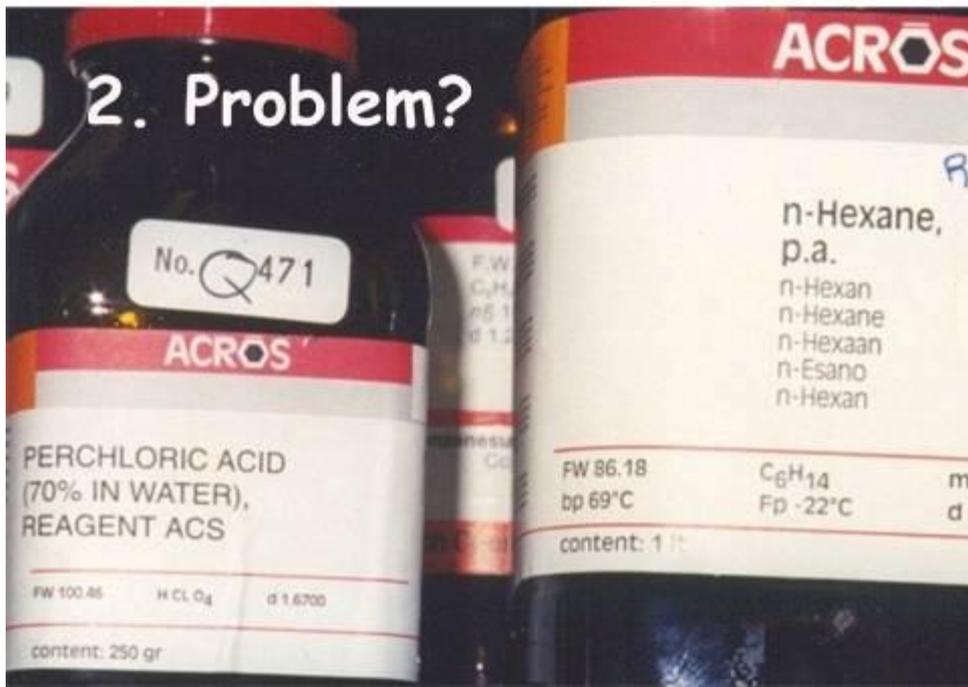




# 1. Problem?



# 2. Problem?



8.

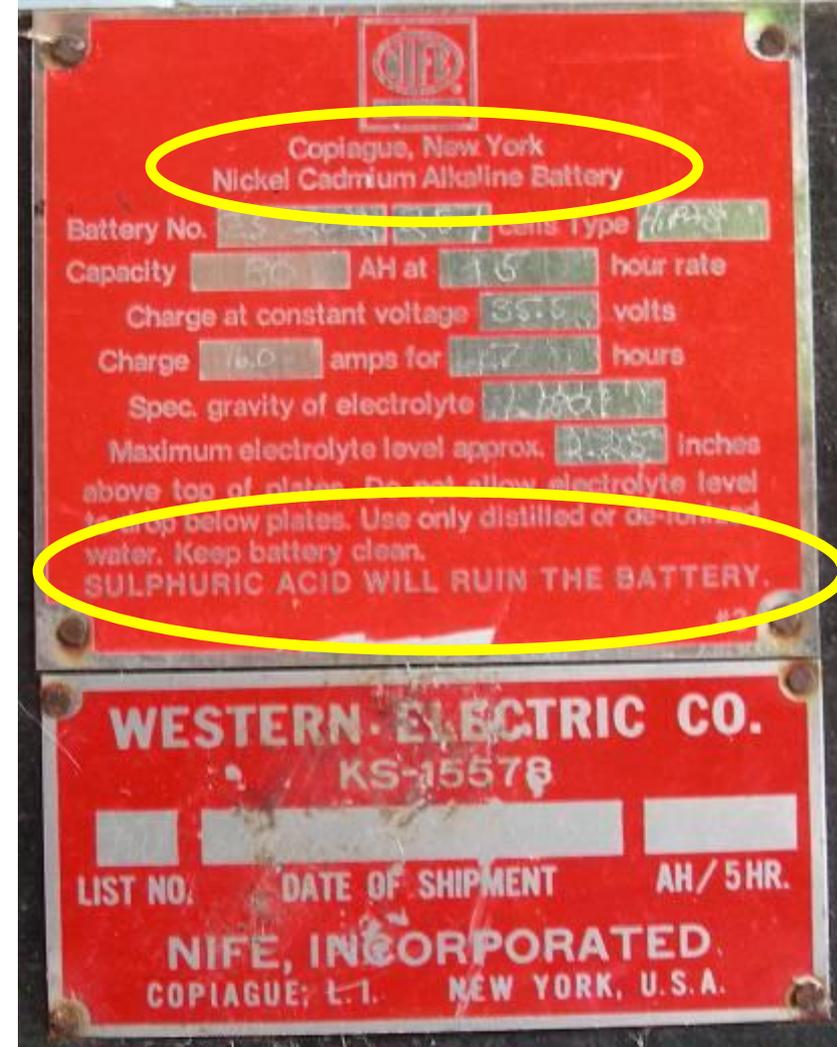


# REAL pictures of dangerous peroxide crystals

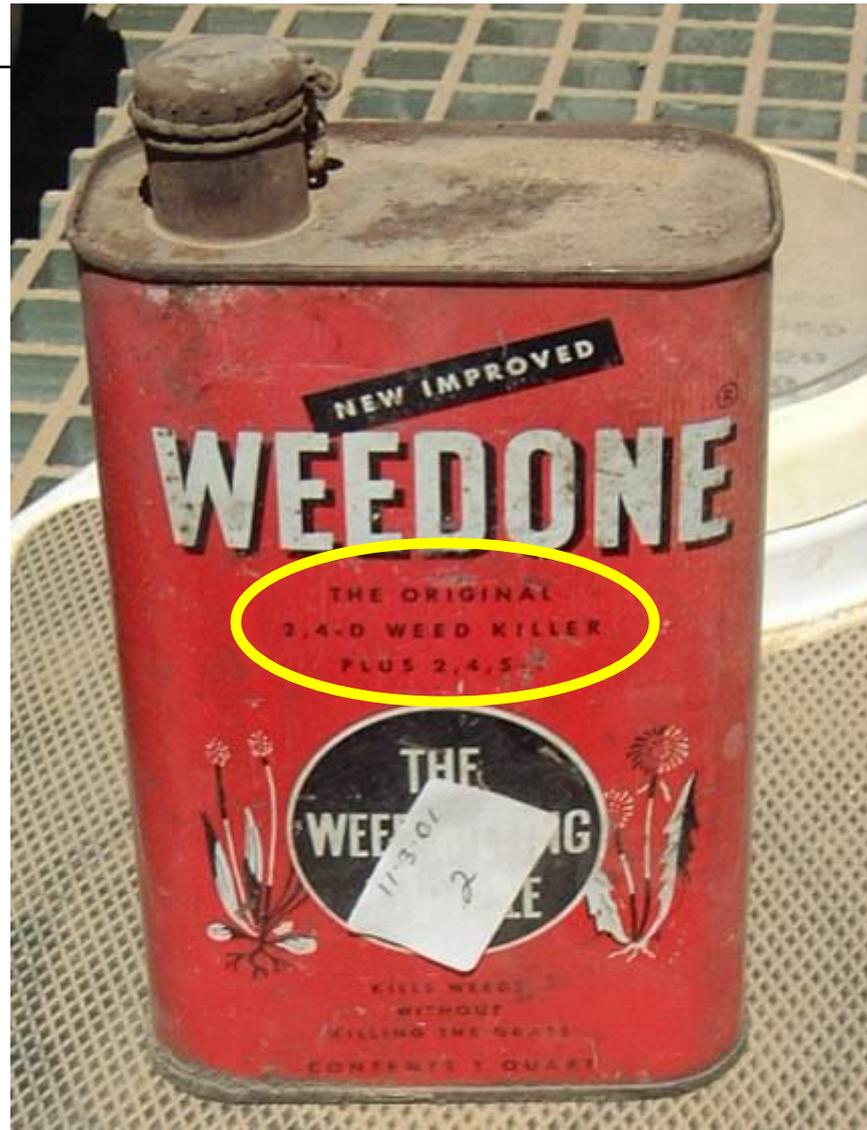
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# Battery



# Weedone, New Improved



# Ice Cream Syrup?



# Head Scratcher



**AEROSOL INSECTICIDE BOMB**  
containing DDT and Pyrethrum extract  
**EFFECTIVE AGAINST INSECTS**  
*such as*

**FLIES, MOSQUITOES, GNATS**

**INGREDIENTS**

ACTIVE 16 1/2 %

INACTIVE

• Difluorodichloro Methane 83 1/2 %

**WALTER KIDDE & COMPANY, INC.**

**BELLEVILLE, N. J., U.S.A.**

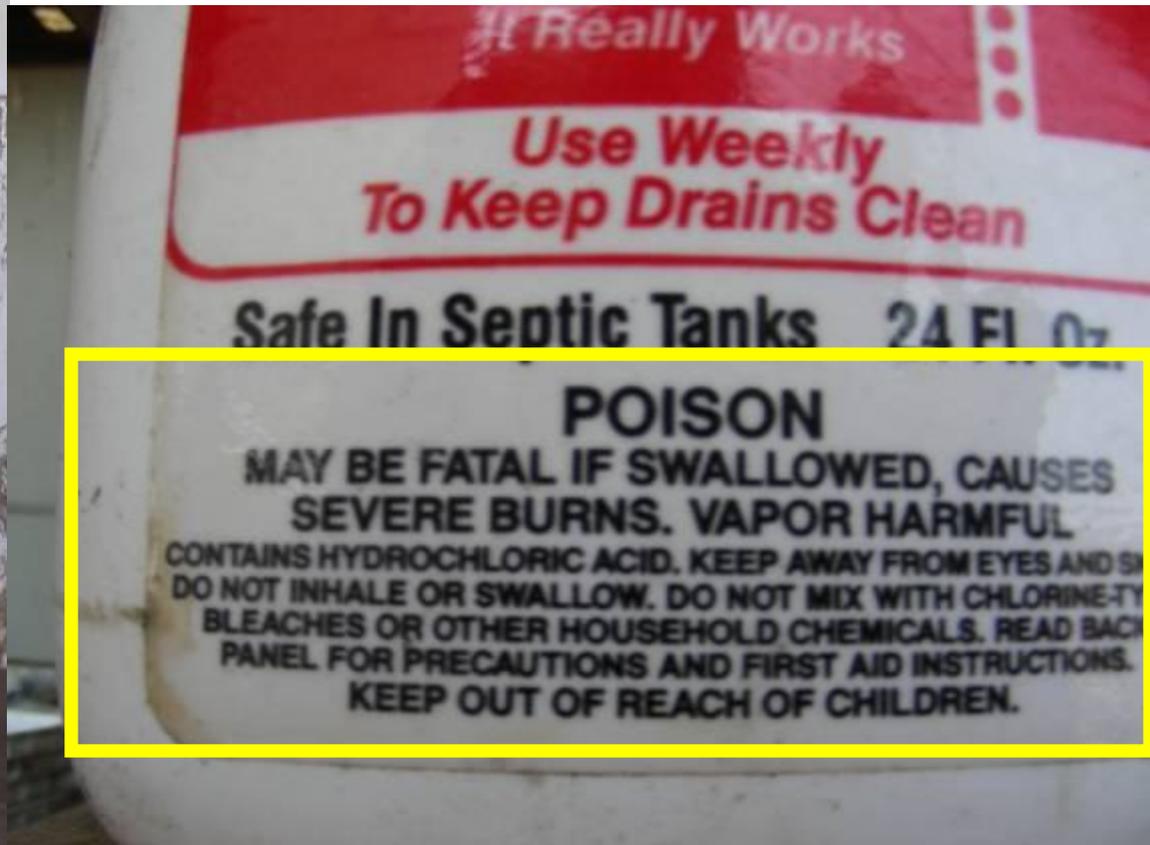
CONTRACT No. W28-021-QM-26855

**CAUTION**

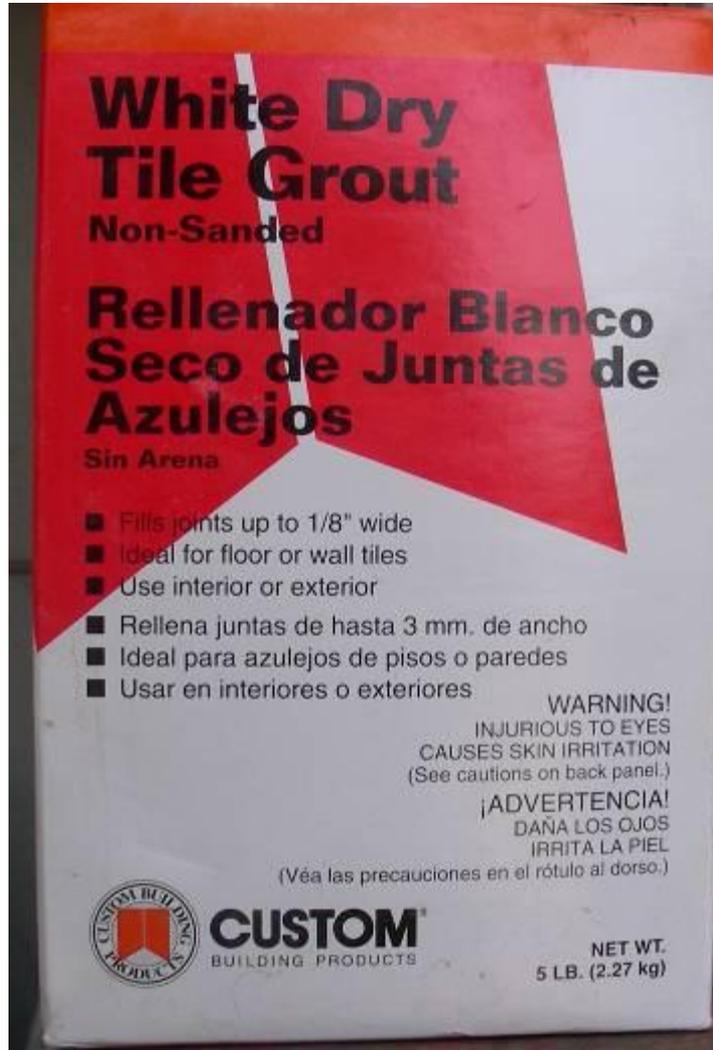
Avoid contact with skin and  
don't spray on food. Avoid exces-  
sive breathing of spray. If taken  
internally, use emetic of mustard.

Net Contents 10 GMS

# Drain Cleaner - Other



# Tile Grout



Mixing: 1 quart of water per 5 lbs. of grout. Allow mixture to set in mixing container for 10 minutes, then re-stir before applying to joints. Grout mix will remain workable for approximately 2 hours. Re-stir grout periodically. Do not retemper.

**INSTALLATION OF GROUT TO CONFORM TO ANSI A108.10 MEETS A118.6 SPECIFICATIONS.**

**Application:** Lightly dampen tiles with clean water before grouting. Force grout into joints with rubber grout float. Remove as much excess grout as possible from the surface of the tiles with edge of the rubber grout float. Allow approximately 15 minutes for grout to set-up and become firm in joints. Soak sponge or cheesecloth in clean, cool water. Wring out excess water completely and wipe tiles clean, using a circular motion. Allow installation to dry for approximately 30 minutes or until a haze forms on tile and the grout in the joints sets firm. Use a soft, clean, dry cloth to polish off haze and remaining grout residue.

**Curing:** Lightly mist grout several times a day for 3 days.

**Clean-Up:** Tools and spills may be cleaned with water before material dries.

**Limitations:** Portland cement grouts should not be placed when ambient temperature is below 50° F. They should not be used in areas where they will be exposed to concentrated acids, alkalis or solvents. Portland cement grouts should not be placed the same day that the tile is installed. Not recommended for use with dense-bodied (low absorptive), vitreous or semi-vitreous tiles. For these applications, use Custom's Polyblend® Sanded Grouts.

**CAUTION:** Contains Portland cement. Wear rubber gloves and eye protection. Avoid eye contact or prolonged contact with skin. Wash thoroughly after handling. If eye contact occurs, flush with water for 15 minutes. Consult a physician immediately.

**Warning:** Custom's Standard Warranty applies. For complete information call: (800) 28-CUSTOM (within the United States) or (562) 598-8808.

**KEEP OUT OF REACH OF CHILDREN.  
DO NOT TAKE INTERNALLY. ONE YEAR SHELF LIFE (FROM DATE OF MANUFACTURE).**

**Warning:** This product contains one or more chemicals known to the State of California to cause cancer.

**INSTRUCCIONES**

**Mezcla:** Combine el relleno con agua limpia y fresca en un receptáculo limpio y bata hasta que adquiera consistencia suave y tersa. Use un litro de agua para 2.27 kg. de relleno. Dejar reposar en el receptáculo durante 10 minutos y bata de nuevo antes de aplicar a las juntas. Con mezcla preparada así se podrá trabajar por unas dos horas. Vuelve a agitar a intervalos. No retemple.

**INSTALACION DEL RELLENO EN CUMPLIMIENTO DE LAS ESPECIFICACIONES A108.10 DE LA ANSI. CUMPLE CON LAS ESPECIFICACIONES A118.6 DE LA ANSI.**

**Aplicación:** Humedece los azulejos con agua limpia antes de rellenar las juntas. Fuerza el relleno a penetrar en las juntas, oprimiéndolo con el alisador de caucho (hule). Quite los excesos de relleno de los azulejos, con el borde del alisador. Deje pasar unos 15 minutos para que el relleno fragüe y se afirme en las juntas. Humedece la esponja o estopilla en agua fresca y limpia, exprimala completamente y pásala en movimientos circulares para limpiar los azulejos. Deje secar por unos 30 minutos o hasta que se forme neblina en los azulejos y el relleno se afirme en las juntas. Quite la neblina y los residuos de relleno, puliendo los azulejos con un paño suave y seco.

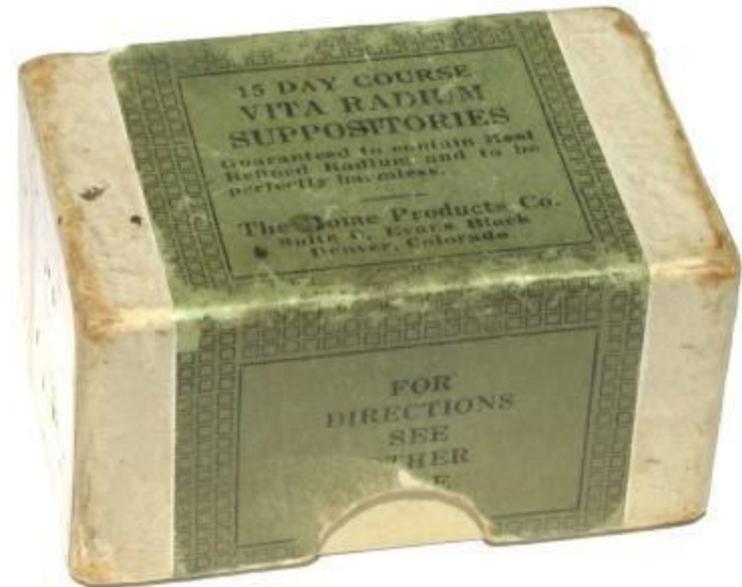
**Curación:** Aplique neblina ligera al relleno varias veces al día durante tres días.

**Limpieza:** Limpie las herramientas con agua y jabón antes de guardarlas.

Proposition 65 = Carcinogen = HW Poison

# Health Solution

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# No Joke!



# BLASTING CAPS

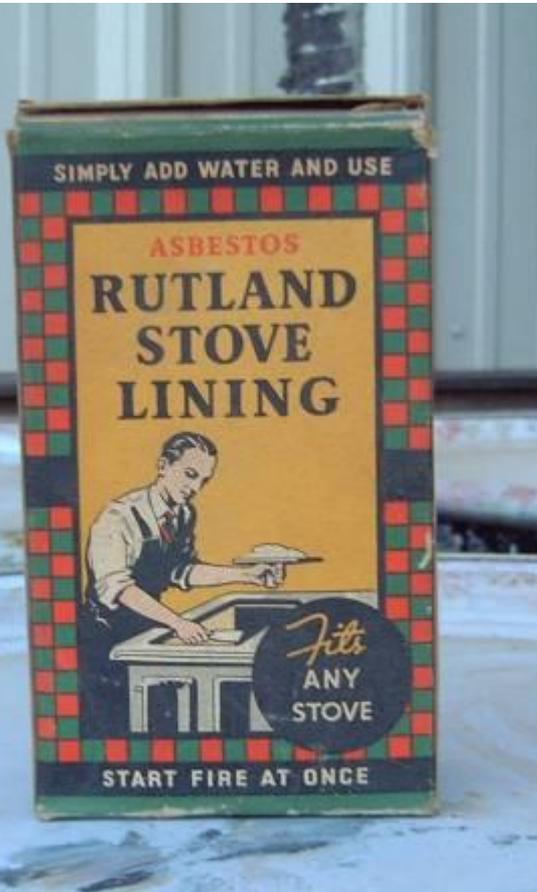


Electric Caps

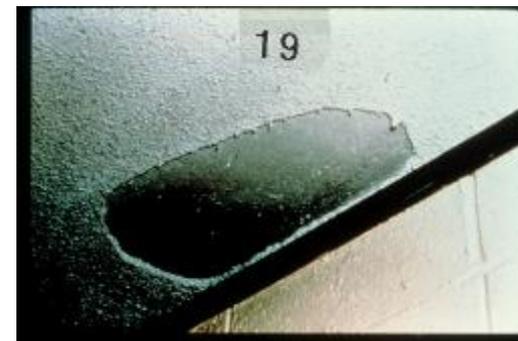
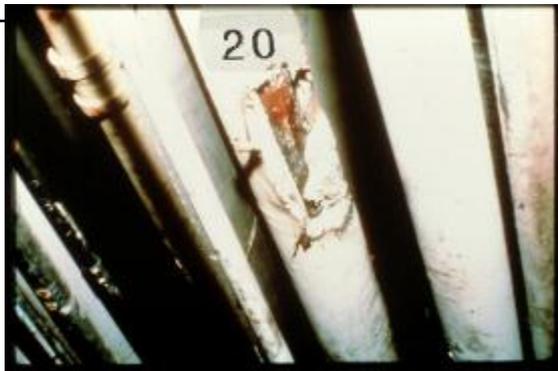


**Blasting caps are dangerous,  
PLEASE DO NOT HANDLE!**

# Asbestos



# Asbestos



# ATOMIC ENERGY LAB



▶ **ATOMIC CLOUD CHAMBER with PROJECTOR ILLUMINATOR**  
See the vapor trails of alpha and beta particles, and of cosmic rays.

▶ **SPINTHARISCOPE** - Shows exploding atoms.

▶ **ELECTROSCOPE** - Measures background radiation and tests sample sources.

▶ **SAFE RADIOACTIVE MATERIALS** Alpha source in handy container and Uranium Ore.

*FULL INSTRUCTIONS COVER USE AND THEORY*



**FUN**

**EASY**

**EXCITING**



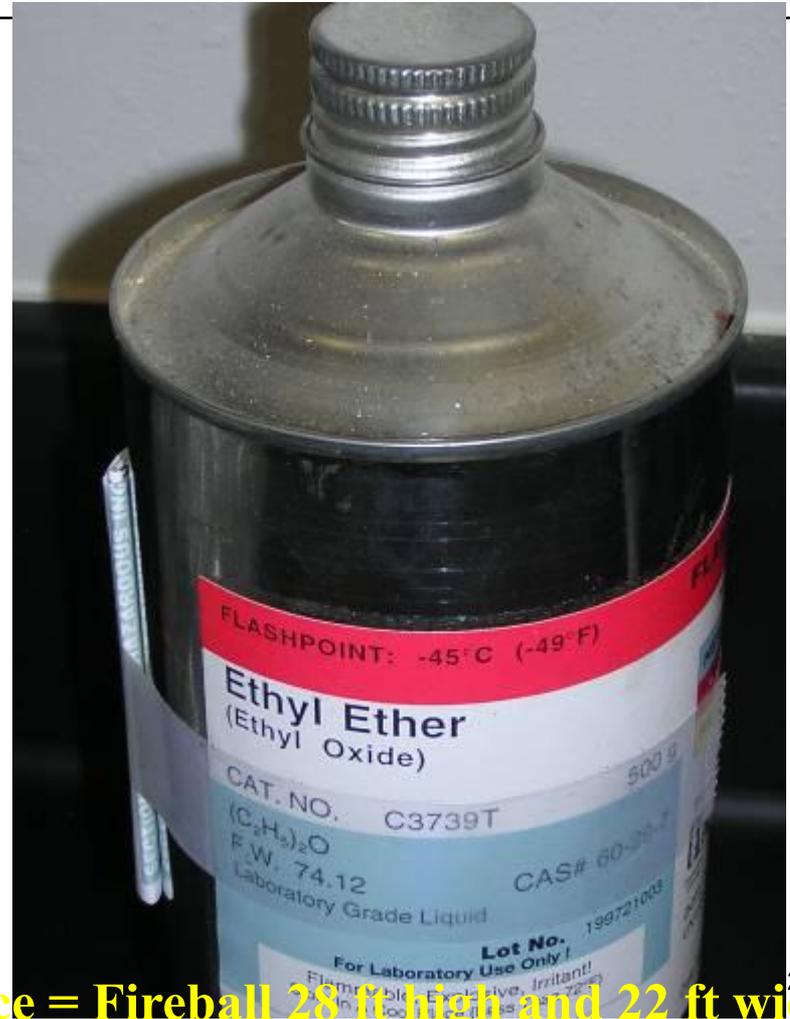
# Juice Jar

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# Before/After

- ❑ 3 ounces Ethyl Ether
- ❑ 250 ml container
- ❑ 15 years old



Ignited with small initiating device = Fireball 28 ft high and 22 ft wide





Coupled induction powered cereal packet



What symbol is this?

