



## REGION 8

DENVER, CO 80202

Ref: 8SEM-EMR

### **ACTION MEMORANDUM**

SUBJECT: Action Memorandum for a Removal Action at the Holladay Chemical/Mercury Response Site (a.k.a. Murray Chem/Mercury Response)

FROM: Taylor Bowker, OSC  
Response Section

THRU: Kerry Guy, Supervisor  
Response Section

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Emergency Management Branch

TO: Aaron Urdiales, Director  
Superfund and Emergency Management Division

#### **I. Purpose**

The purpose of this memorandum is to document the decision to initiate emergency response actions described herein for the Holladay Chemical / Mercury Response Site located in Holladay, Salt Lake County, Utah. This emergency response involved the collection and disposal of various chemicals including mercury, radium dials, and the management and detonation of explosive materials, including dynamite. Conditions existing at the Site present a threat to public health or welfare or the environment and meet the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the National Contingency Plan (NCP).

#### **II. Site Information**

##### **A. Site Description**

Site Name: Holladay Chemical / Mercury Response Site  
Site Spill ID (SSID): BJ84  
NRC Case Number: 1397057  
CERCLIS Number: UTN000826423  
Site Location: Southwest of S 2300 E and Big Cottonwood Rd, Holladay, UT  
Lat/Long: 40.638336184376094, -111.82527022313089  
NPL Status: Non-NPL

Removal Start Date: 04/23/2024

**B. Site Background**

**1. Site Evaluation**

On April 22, 2024, Salt Lake County reported the discovery of abandoned mercury and various other chemicals to the National Response Center and EPA. These chemicals were located at the home of a deceased University of Utah professor in Holladay, Utah. Salt Lake County received the report from the professor's widow. Salt Lake County inspected the home and found elevated airborne levels of mercury (greater than 16 micrograms per cubic meter) as well as a litany of other chemicals (including acids, bases, ethyl ether, and other solvents) in the basement and a storage shed at the residence. The widow indicated she was unaware of the contents of what she described as her husband's "hobby lab." Salt Lake County requested EPA assess the situation and properly remove and dispose of the chemicals.

The OSC, along with Superfund Technical Assessment & Response Team (START) and Emergency and Rapid Response Services (ERRS) contractors, were deployed at 1345 MDT on April 22, 2024. On April 23, 2024, EPA's contractors conducted an entry into the home and confirmed presence of abandoned mercury and other chemicals. Additional shock-sensitive chemicals and "sweating" dynamite were found on the property. "Sweating" dynamite is highly unstable and hazardous.

EPA contacted the Unified Fire Authority of Greater Salt Lake for assistance with the shock-sensitive chemicals and dynamite. Based on the condition of the dynamite and chemicals, Unified Fire Authority conducted two controlled detonations in the early hours of April 24, 2024. Prior to the detonations, EPA contractors removed the known bottles of elemental mercury and as many chemicals as safely possible from the property. The first detonation was conducted in the backyard. The second detonation was conducted in the basement due to the extreme hazardous condition of the "sweating" dynamite and the risk of relocating the dynamite. The home was destroyed by the detonation and subsequent fire. A local building inspector assessed damage to nearby residential properties. EPA contractors assessed the neighborhood for lingering mercury vapors as well as particulates and organic vapors, and conducted a visual assessment for potential asbestos containing building materials that were spread with debris from the detonations. There were no concerning levels of mercury vapors measured beyond the boundaries of the home and no asbestos containing materials were observed on the nearby properties.

Following the detonation and fire, EPA's START and ERRS contractors inventoried and removed all known remaining chemical containers from the shed on the property. Radium dials and radium paint were discovered and

secured for disposal. Four additional shock sensitive containers were discovered and taken to the local bomb squad magazine to be stored and later detonated. Several gas cylinders were removed from the debris, found empty de-valved, marked, and left on-site with the remaining debris. Salt Lake County officials have verified that there were no firefighting impacts to the nearby creek.

## 2. Physical location and Site characteristics

The Site is defined as the residence located just Southwest of the intersection of S 2300 E and Big Cotton Road in Salt Lake County, the contractor facility where the chemicals were staged, and the Unified Fire Authority Bomb Squad facility where the shock sensitive chemicals were sent to be stored and disposed of. The residence is in a neighborhood of single-family homes and had one inhabitant as well as a cat. In general, the chemicals at the site were in containers with original or handwritten labelling located mostly in the shed on the East side of the property and in the basement of the residence.

The roads and general topography in the area ranges from flat to steep. The home is along the front range of the Wasatch mountains southeast of Salt Lake City.

According to the 2020 census, the City of Holladay has a population of 31,965 over an area of 8.5 square miles. The median income is approximately \$106,099.

According to EPA's Environmental Justice (EJ) Screening and Mapping Tool, the data indicates potential areas of EJ concern at or near the Site.

## 3. Release or threatened release into the environment of a hazardous substance, pollutant or contaminant.

Approximately 2 liters of mercury were found throughout the site. Elevated mercury vapors were measured in the basement as high as 9.71 micrograms per cubic meter. For reference, EPA guidance recommends relocation of residents at 10 micrograms per cubic meter. Mercury vapors were measured in the chemical cabinet, washing machine, and floor drains indicating mercury had likely spilled in the basement of the house. Mercury is listed as a hazardous substance pursuant to 40 CFR §302.4 and Section 101(14) of CERCLA.

Mercury is the only metal that is liquid at room temperature. In its pure form (often called metallic or liquid), mercury is a shiny, silver-white, odorless liquid. At room temperature, mercury vaporizes into a toxic, colorless,

odorless gas.<sup>1</sup> In its vapor form, mercury is easily inhaled and extremely toxic. For liquid mercury, the most important route of absorption is through inhalation. Because of the chemical nature of liquid mercury vapor, deposition and retention in the lungs are quite high (on the order of 80 percent in humans).<sup>2</sup>

In addition to the large volume of mercury, the EPA's Response Team identified sweating sticks of dynamite in two ammunition cases, radium dials, compressed gas cylinders, and other hazardous substances and chemicals in approximately 700 individual chemical containers, including expired peroxide forming chemicals. A list of the chemicals found on the site is provided in Attachment 3, many, or all of which are also listed as hazardous substances in 40 CFR §302.4 and Section 101(14) of CERCLA.

### **III. Threats to Public Health Welfare or the Environment**

#### **A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants.**

The mercury vapors measured throughout the basement indicated that there was likely a release of liquid mercury onto the floor of the basement within the residence. Some of the mercury containers found on the property were not sealed, emitting mercury vapors, and stored next to shock-sensitive and explosive materials. Due to the mercury spill, lack of proper storage and the extreme mobility and persistency of liquid mercury, this site posed a substantial threat of a release of mercury into the environment.

In addition, the EPA's Response Team identified other chemicals and hazardous substances in accordance with 40 CFR §302.4 and Section 101(14) of CERCLA. Almost all the chemicals identified were stored in the basement and shed next to shock sensitive chemicals and sweating dynamite. Some chemical containers were compromised, and many were stored next to acids and bases, flammable liquids, radium dials, and other chemicals that would exacerbate the risk and repercussions of a release. A list of the chemicals found in the garage is provided in Attachment 3.

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<sup>1</sup> United States of America, Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine Prevention, Response and Medical Support Branch Emergency Response Team. (2012, March 22). Action Levels for Elemental Mercury Spills.

<sup>2</sup> Arch Environ Health, 1976 Nov-Dec; 31(6):302-9. Clearance of mercury (HG-197, HG-203) vapor inhaled by human subjects.

**B. Factors (from 40 CFR 300.415) which were considered in determining the appropriateness of a removal action:** EPA has considered all the factors described in 40 CFR 300.415(b)(2) of the NCP and determined that the following factors apply at the Site.

X Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)].

Mercury vapor levels measured within the house indicated that mercury had spilled in the basement. The numerous bottles/containers of mercury stored at the property were not all sealed and were releasing mercury vapors into the home. The mercury and chemicals in the house and shed could have migrated into the surrounding residential area through weather, an explosion or fire, or migration with the resident or cat.

Other chemicals and hazardous substances were found in the shed and basement of the home. These chemicals included acids, bases, flammable liquids, chlorinated solvents, Ethyl Ether and other peroxide forming shock sensitive chemicals as well as sweating dynamite.

If left unaddressed the mercury and chemicals in the house and shed could have migrated into the surrounding residential area threatening nearby populations.

X Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.415(b)(2)(v)].

Weather conditions, including wind and precipitation would continue the deterioration of the already dilapidated storage shed where approximately half of the chemicals were stored.

Additionally, the Wasatch Fault line transects much of Holladay causing earthquakes in the area. An earthquake affecting the site could cause many of the chemicals to fall off the open shelves they were stored on and release into the environment. The close proximity of incompatible chemicals, flammable liquids, shock sensitive chemicals, and sweating dynamite could exacerbate this release.

X Threat of fire or explosion [300.415(b)(2)(vi)].

The presence of shock-sensitive chemicals and sweating dynamite posed a significant threat of fire or explosion. The dynamite and shock-sensitive chemicals were also stored in close proximity to flammable liquids, acids and bases, and other incompatible chemicals that would exacerbate the outcome of any explosion or fire.

- X The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)].

Salt Lake County requested assistance from EPA on April 22, 2024. At that time, Salt Lake County indicated that it did not have the ability to respond. The Utah Department of Environmental Quality also lacked the ability to respond to a threat/threat of release of this magnitude.

#### **IV. Selected Removal Action and Estimated Costs**

##### **A. Situation and Removal Activities to Date**

###### **1. Current Situation.**

All identified chemicals have been removed from the residence and have been assessed, packaged, and prepared for disposal which is currently planned to occur in June 2024. The remnants of the home and lot will be cleaned by a cleanup company contracted through the homeowner's home insurance. No further removal activities are currently planned for this site.

###### **2. Removal activities to date:**

###### **a) Federal Government/Private Party**

EPA's Removal Program initiated an emergency response on the authority of the On-Scene Coordinator (OSC) on April 23, 2024. An EPA response team arrived at the residence April 23, 2024, and to assess and conduct removal actions as appropriate. EPA removed approximately 700 chemical containers along with other identified hazardous substances. Four additional shock-sensitive containers discovered after the detonations were taken under police escort to the local bomb squad magazine to be detonated. EPA sifted through the ash footprint and debris at the house to identify any apparent remaining chemicals and hazardous materials. EPA identified potentially pressurized cylinders which were de-valved, marked as empty, and left at the property. The chemicals removed were taken to a contractor facility to be assessed, bulked, lab packed, and prepared for disposal. The chemicals are prepared for disposal planned to occur in June 2024. The homeowner's insurance will address the solid waste remaining at the site.

###### **b) State/local**

Salt Lake County conducted an initial investigation of the property and requested assistance from EPA to assess and respond to this site. Salt Lake County personnel were onsite throughout the removal. The state was notified via the National Response Center (NRC) report and was later updated on the development of the site.

Unified Fire Authority Bomb Squad detonated the peroxide forming shock sensitive chemicals and sweating sticks of dynamite on site under its own authority.

3. Enforcement

Where the responsible parties are known, an effort initially shall be made, to the extent practicable, to determine whether they can and will perform the necessary removal action promptly and properly.

**B. Planned Removal Actions**

1. Planned action description

The EPA response assets will arrange for the proper off-site disposal of removed chemicals and other wastes.

2. Contribution to remedial performance

The proposed actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action at the site.

3. ARARs

This Action Memorandum addresses the emergency response actions at the Holladay Chemical/Mercury Response Site (a.k.a. Murray Chem/Mercury Response). Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the OSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

4. Project Schedule

This removal action began on April 23, 2024. The property owner consented to EPA's access to the property on April 23, 2024, and the EPA's Response Team began on-Site response operations on April 23, 2024. The emergency removal action is expected to take another month for final disposal of the chemicals.

**C. Estimated Costs\***

ERRS Contractor	<b>\$200,000</b>
START Contractor	<b>\$100,000</b>
Contingency costs (20% of subtotal)	<b>\$60,000</b>
<b>Total Removal Project Ceiling</b>	<b>\$360,000</b>

\*EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA. "

**V. Expected Change in the Situation Should Action Be Delayed or Not Taken**

A delay in action or no action at this Site would have increased the actual or potential threats to the public health and/or the environment.

**VI. Outstanding Policy Issues**

None.

**VII. Approvals**

This decision document represents the selected removal action for this Site, developed in accordance with CERCLA as amended, and is not inconsistent with the National Contingency Plan. This decision is based on the administrative record for the Site.

Conditions at the site met the NCP section 300.415(b) criteria for a removal action and through this document, I am approving the proposed removal actions. The total project ceiling is \$360,000, this amount will be funded from the regional removal allowance.

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Aaron Urdiales,  
Director  
Superfund Emergency Management Division

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Date

Attachments

Attachment 1: Maps

Attachment 2: Photos

Attachment 3: List of Murray Mercury Response Chemicals



## Attachments

### Attachment 1: Maps

Map 1: Map of Holladay Mercury / Chemical Residence



Attachment 2: Photos

Photo 1: Chemicals Stored in the Property Shed





Photo 2: Chemicals Stored in the Property Basement Cabinet



Photo 3: Mercury Containers Found in Shed and Basement





Photo 4: Dynamite Stored in Ammo Box in the Shed

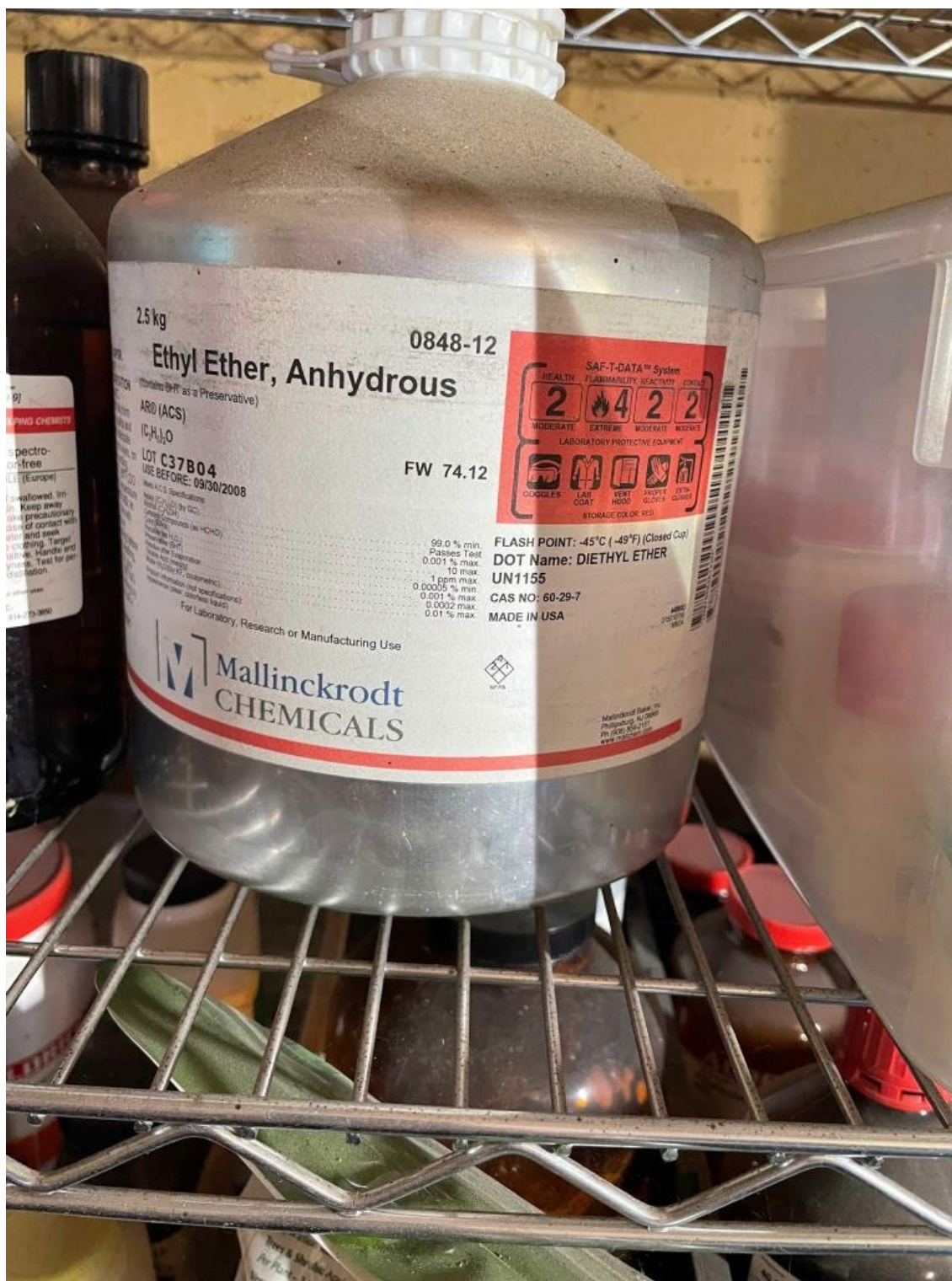


Photo 5: Dynamite Stored in Ammo Box in Basement





Photo 6: Ethyl Ether Stored in the Shed



### Attachment 3: List of Chemicals Removed from Property

Chemical Name
"Pink Power" teledyne battery products
(2-bromophenylethynyl) trimethylsilane, 98%
(4-iodophenylethynyl)-trimethylsilane, 97%
1" Chlorinating tablets for pools
1,1,1-Trichloroethane
1,10 Phenanthroline
1,1'-Carbonyldiimidazole
1,2 Ethandiol (ethylene glycol)
1,2-Dibromoethane
1,2-Dichloroethane GR
1,2-Propanediol (propylene glycol)
1,3-Propane-diamine; practical
1,4 Dihexyloxy benzene
1,4 Dihexyloxy-2,5 dichloromethyl benzene
1,4,-Bis(trimethylsilyl)-benzene, 96%
1,4,-diazabicyclo[2.2.2]-octane, 98%
1,4-Dibromobenzene, 98%
1,4-diethynylbenzene, 96%
1,4-dioctyloxy benzene
1,4-Dioxane
1,8-diazabicyclo[5.4.0]-undec-7-ene, 98%
1-Bromo-2-fluoro-benzene, 99%
1-Bromo-4-iodobenzene, 98%
1-bromobutane
1-Bromooctane-d <sub>17</sub>
1-chloro-4-iodobenzene, 99%
1-chlorobutane
1-Hexane
1-methyl-2-pyrrolidinone, 99%, spectrophotometric grade
1-methyl-2-pyrrolidinone
1-Methyl-3-pyrrolidinone
2,6-Di-tert-butyl-4-methylphenol
2331-ZX Soldering Flux
2-Ethoxyethanol
2-ethoxyethyl ether
2-methoxyethanol
2-phenylpyridine, 98%
3,4-Dihydro-2H-pyran, 97%
3-methyl-1-butanol
3-methyl-butanol
4,4'-methylenebis-(cyclohexylamine), 97%
4-Chloro-3,5-dimethylphenol, 99%
4-Iodaniline 98%



Chemical Name
Acetaldehyde
Acetic Acid
4-Iodotoluene, 99%
Acetic Acid, Glacial
Acetic anhydride
Acetone
Acetonitrile
Acetyl Acetone
Activated charcoal
Aluminum chloride
Aluminum chloride anhydrous
Aluminum oxide
Aluminum, powder
Aluminum; Paste
Aluminum-nickel catalyst
Ammonium Chloride
Ammonium Hydroxide
Ammonium nitrate
Ammonium oxalate purified
Ammonium persulfate crystals
Ammunition (bullets)
Analine
Aniline
Barium Chloride
Barium; rods (2 cm in diameter)
Battery electrolyte (30-40% sulfuric acid)
Benomyl
Benzaldehyde
Benzalkonium Chloride
Benzene
Benzoic Acid
Benzophenone 99%
Benzoselenadiazole
Benzyl alcohol
Benzyl bromide, reagent grade, 98%
Bicarbonate Diluent
Borax, granular
Boric acid
Boron tribromide, reagent plus, >99%
Boron trifluoride diethyl etherate
Bromine
Bromobenzene
Butyraldoxime
Calcium pieces
Calcium; pieces (<1 cm)

Chemical Name
Camphor blocks
Carbazole, 95%
Carbon disulfide
Camp fuel
Carbon tetrachloride
Carbon Tetrachloride
Carbon-13 amorphous
Caustic Soda Beads
Cedar wood oil
Cellulose
Chlordane
Chlordane dust
Chloride
Chlorinating pouches for pools
Chloroform
Chlorosulfonic acid, 99%
Chlorotrimethyl
Chlorotrimethylsilane
Citric acid, granular
Citric acid, monohydrate
Cobalt Chloride
Compressed gas, butane
Compressed gas, carbon dioxide
Compressed gas, oxygen
Compressed gas, propane
Copper
Copper Iodide, 99%
Copper; 20 mesh
Coumarin
Crystalline silica
Cumene
Cyclohexane
Cyclohexanone
Denatured alcohol
Deuterium bromide
Developer for copper circuit boards
Diazinon
Dibromo-p-xylene, 97%
Dichlorodimethylsilane
Dichloromethane
Diethyl chlorophosphate, 95%
Diethyl chlorophosphate, 97%
Diethylamine
Diisopropylamine
Dilsopropyl-amine

Chemical Name
Dimethyl sulfate, 99%
Dimethyl Sulfoxide (DMSO)
Diphenylacetylene, 98%
Dodecylbenzenesulfonic Acid
Dimethyl malonate
Dorman Disease Control
Dormant Spray
Edetate Disodium
Ektacolor 3 developer part A
Ektacolor 3 developer part B
Ektacolor 3 developer part C
Ektacolor RA bleach-fix and replenisher part A
Ektacolor RA developer additive
Ektacolor RA developer replenisher
Ektacolor RA developer replenisher RT part B
Ektacolor RA developer starter
Ektacolor RD color developer part B
Ektacolor RD first developer
Ektaprint 2 bleach fix part a
Ektaprint 2 bleach fix part b
Ektaprint 3/R-5 bleach-fix regenerator starter
Ektaprint RD bleach-fix
Ektaprint RD stabilizer
Ektaprint RD stop bath
Ektoprint 2 developer part A
Ektoprint 2 developer part B
Ektoprint 2 developer part C
Ektoprint 2 developer part D
Ethanol 200 proof
Ethnyltrimethylsilane
Ethyl Acetate; Technical
Ethyl Alcohol USP
Ethyl bromoacetate
Ethyl propiolate, 99%
Ethylene Glycol
Ethylenediamine anhydrous
Extrax; Insect spray; '400'
Farm and Home Cleanser
Ferric Chloride
Ferric Nitrate
Fixer powder for films, plates, and paper
Flexicolor bleach for process C-41 part C
Flexicolor bleach II for process C-41 part A
Flexicolor bleach II for process C-41 part B
Flexicolor developer for process C-14 part A

Chemical Name
Flexicolor developer part A
Flexicolor developer part B
Flexicolor developer part C
Flexicolor fixer and replenisher process C-41
Flexicolor fixer for process C-41 part C
Flexicolor developer for process C-14 part C
Flexicolor stabilizer
Fluorene, granular
Fluorescein sodium salt (uranin)
Formaldehyde solution
Formamide
Formic acid
Fruit tree spray
Fuming sulfuric acid
Furan
Furfural
Glycerin
Glycerine (glycerol)
Gold, metal paste
Green light home pest insect control
Gun powder
Handwritten label of "DDT + sulfur"
Hexamethyldisilazane
Hexamethylphosphoramide, 99%
Hexane
HI-FI developer powder A & B
Home Pest control
Home pest killer
Hydrobromic acid
Hydrochloric Acid
Hydrogen peroxide 30%
Hydrogen peroxide 50%
Hydroquinone-d4 (phenyl d-4; 1,4-dihydroxybenzene)
Hydroxylamine hydrochloride
Hydrobromic acid
Imidazole, reagent plus 99%
Indene, 98%
Indium (III) chloride
Indium (III) chloride hydrate
Indium; Lump; 15 mm
Iodobenzene 98+%
Iodomethane, stabilized, 99%
Isopropyl alcohol
Kerosene
Kodak Ektacolor RA bleach-fix and replensher Part B

Chemical Name
Lauric Acid, 99%
Lead acetate
Linseed oil
Liquid Lith Developer part A
Liquid Lith Developer part B
Liquid mercury
L-ascorbic acid
Liquid Sevin
Lithium
Lithium deuterioxide
Lithium perchlorate
Magnesium metal shavings
Magnesium Sulfate, anhydrous, powder
Magnesium, powder
Magnesium, turnings
Malathion
Maleic anyhydride, briquettes, 99%
Malononitrile
Manganese Chloride
m-Cresol, practical
Methanol
Methyl Ethyl Ketone
Methyl sulfoxide (DMSO)
Methylene Chloride
Mineral Oil
Molecular Sieves
Morgan fuel
Morpholine, reagent plus >99%
N,N' - Dicyclohexyl-carbodiimide, 99%
n,n-diethylformaldehyde
n,n-diethyl-m-toluamide
N,N-Dimethylacetamide
n,n-dimethylformaldehyde
Naptha
N-Bromosuccinimide reagent plus, 99%
N-Butyl Alcohol
n-Diethyl-m-toluamide
Neosheep dip
Nickel Sulfamata RTU, soluble
Nitric Acid
Nitrobenzene
Nitromethane
N-methyl-2-pyrrolidinone
n-Pentane
OC-50 insecticide

Chemical Name
Palladium (II) acetate
Palladium (II) chloride
Palladium (II) Iodide (PdI <sub>2</sub> )
Palladium black
Palladium, 5 wt % on activated carbon
Paraformaldehyde <sup>13</sup> C
Paraformaldehyde; Powder
Paint thinner
Pentane
Petroleum ether
Phenyl Isocyanate
Phenylacetylene, 98%
Phenylenedamine
Phosphorus trichloride, reagent plus, 99%
Phosphoric acid
Phosphorous pentoxide
Phosphorus(V) oxychloride, reagent plus, 99%
Piperidine
Platinum paste
PMT activator
Pneumatic lubricating oil
Poly(2-(2',5'-bis(2"-ethyl-hexyloxy)phenyl)-1,4-phenylene-vinylene)
Poly(4-vinylpyridine)
Poly[2-methoxy-5(3',7'-dimethyloctyloxy)-1,4-phenylene-vinylene]
Polysul
Polysul summer & dorman spray
Potassium bromide
Potassium carbonate, anhydrous
Potassium chloride
Potassium dichromate
Potassium ferricyanide
Potassium hydroxide
Potassium hydroxide pellets
Potassium iodate
Potassium iodide
Potassium Phosphate
Potassium tert-butoxide
Potassium tetrachloroplatinate (II) (K <sub>2</sub> PtCl <sub>4</sub> )
Potassium tetraphenyl-borate, 97%
Potassium; ingot
Potassium; lump
Propanediamine
Propylene carbonate
Propylene Glycol
Pyrogallol (Pyrogallic acid) solid

Chemical Name
Pyrrole, reagent grade 98%
Pyrrolidine Pyrrolidin
Radium dials (11)
Rapid Process High Contrast Developer
Reagent alcohol
Rose Mildew Control
SAE 5W-30 motor oil
Pyridine
Sand
Selenium(IV) oxide p.a.
Silica gel (flash)
Silica Gel mesh
Silica gel standard without binder, with fluorescent indicator
Silica Gel, Davisil grade
Silica Gel, desiccant
Silicon (II) oxide
Silicone Gel, part a
Silicone Gel, part b
Silicone; high vacume grease
Silver (II) Oxide (AgO)
Silver nitrate
Silver palladium ink
Silver paste
Silver powder
Silver print
Silver trifluoromethane-sulfonate, 99%
Sodium acetate anhydrous Hi-AR/ACS
Sodium azide
Sodium bichromate
Sodium borohydride powder, 98%
Sodium carbonate monohydrated
Sodium Chloride Crystal
Sodium citrate
Sodium dodecyl sulfate; powder
Sodium hydride, 60% dispersion in mineral oil
Sodium hydroxide reagent (solid pellets)
Sodium iodide, granular
Sodium lump
Sodium methoxide
sodium nitrate
Sodium nitrite
Sodium phosphate
Sodium selenate
Sodium sulfate
Sodium thiocyanate

Chemical Name
Strong Ammonia Solution
Strontium, random pieces
Sulfamic acid crystals
Sulfuric Acid
Sulfuric acid fuming
TCO2 release agent
Tert-Butyl Alcohol
Tert-butyl nitrite
Sodium sulfite anhydrous
Tertiary-butanol
Tetrahydrofuran
Tetrakis(triphenylphosphine)palladium
Theobromine
Thionyl chloride, 97%
Thiophene
Tin (II) chloride dihydrate
Tin; 20 mesh
Toluene
Toluene-d8
trans-Cinnamaldehyde
Tributylphosphine, 97%
Trichloroethane
Trichloroethylene
Trichlorotrifluoroethane
Triethylamine
Trifluoroacetic acid, reagent plus, 99%
Trisodium phosphate
Triton x-100
Turpentine
Ultracentrifuge high-speed drive oil
Urea
Vacuum Pump Oil
VOLCK oil spray
Weed-b-gon lawn weed killer
Wet patch roof cement
Xylene
Zinc dust
Zinc, Technical
clear bottle with note of "HCL 10%"
Clear bottle with printed label "Nitric acid concentrated 70%"
Clear bottle with note of "HCL 70%"
Eastman organic chemicals; labels partially intact; chemical name not legible
Clear bottle with handwritten label of "EtOH"; 1gal; 1/2 full
Amber bottle with printer label "trichloroethylene"
Amber bottle with handwritten molecular structure



Chemical Name
Clear bottle with handwritten molecular structure
White 5-gallon bucket with msds stating 'Quicklime (calcium oxide)'
White ice cream bucket labeled "Caustic Soda" by hand
White bucket with handwritten "Mercury" label
Clear bottle with teal cap, handwritten "cyclohexane" labe
Amber bottle, 1L with "pirhana solution" label
Clear bottle with handwritten label of "thiourea"
Amber bottle with handrwritten label of "molecular sieves"
Amber bottle with handwritten label of "silica gel"
Clear bottle with hadwritten molecular structure
Amber bottle with handwritten label of "triethylamine"
Amber bottle with handwirrtten label of "distilled ethylene diamine"
Clear plastic bottle with handwritten label "tray cleaner"
Plastic container with handwritten label "silica gel silanized"
Amber bottle with handwritten label "EDTA"
Plastic container with handwritten label "urea"
Amber bottle with handwritten label of "KOH" with solid pellets
Amber bottle with handwritten label of "1,1,1 trichloroethane for gun cleaning"
Glass vile with self-printed label of "1,4-dibromobenzene"
Amber bottle with hadwritten molecular structure
Glass vial with handwritten label of "Kotbu"
Glass vial with self-printed label of "Bis(1,4,-ethynl)phenyl platinum polymer"
Glass vial with self-printed label of "[Bis-tributylphosphine Platinum][diethynlphenyl] polymer"
Container with various isotopes including uranium, plutonium,
Clear vial with brown pellets, no label
Clear vial with white powder and handwritten label of "DCNB"
Clear kimax vial with a black cap and no label
Container with handwritten label of "decolorized carbon"
Clear glass; black cap; fine black powder inside, no label
Unknown; handwritten label 'magnesium'
1L poly with handwritten label "acetone"
Labled 'electropolishing solution'; 25% H3PO4, 75% Glycerin
1L Amber bottle; red cap; unlabeled
Solvent spray bottle with red cap labeled "acetone"
Unlabeled glass jar with black granulas
100mL amber bottle; yellow cap; no label
100mL amber bottle; handwritten label "AuCl <sub>3</sub> 17.753g ~25mL"; aq solution
100mL amber bottle with printed label "Silica gel thin layer". label correct.
100mL amber bottle unlabeled
100mL clear bottle with unknown white/geled solid; unlabeled
1L amber arcos bottle with label crossed out and handwritten label "Methanol Day"
fibrous roll of unknown material
Lab reagent made in 2003 by late tenant 1,4-dihexyloxy-2,5 dichloromethyl benzene
Label over mfg label "Wojcik Technical Services Bromobutane"
Camp fuel containers with handwritten label "nitromethane"

Chemical Name
1L Amber with handwritten label "H <sub>3</sub> PO <sub>4</sub> " - phosphoric acid
1L widemouth clear jars with unknown white/geled solid; unlabeled
1L amber with partial torn label of "iso-butyl"
250mL amber with corroded label; possibly sulfuric acid
1 Gal poly with handwritten label "acetonitrile waste"
5 Gallon bucket labeled 'coke'
1L clear mason jar with unknown white powder
1L poly unlabeled; dark staining on entire bottle; possibly acid
4L with printed label "hexane"
500mL with handwritten label "acetonitrile"
Mfg label crossed out with handwritten label of "M.Lentz diethyl ether"; 4L
5 Gal mostly illegible label with "non-regulated material" still legible
1L clear poly with printed label "formaldehyde"
1L arcos bottle with mfg label crossed out and handwritten label "lanizine solution in toluene"
Printed label "acetonitrile/water Azeotrope 84/16" 4L
1L white poly; label worn
5 gal bucket labeled 'lime'
5 gal bucket labeled 'activated carbon coconut'
1 L bottle labeled 'pyridine' contains small, cylindrical, straw colored pellets, possibly molecular sieves
500mL amber glass with handwritten label " Tolyene Diisocyanate Mo Bay Chem Co. Munder TD E-001"
White poly bottle with handwritten label "K <sub>2</sub> CrO <sub>4</sub> " Potassium chromate solids
White poly bottle with handwritten label "Dierite indicating". Moisture indicators
4L amber bottle labeled 'hexane' on masking tape
1L ploy bottle with handwritten label 'H <sub>2</sub> SO <sub>4</sub> , 20%'
250 mL poly handwritten 'salcylic acid'
1L poly with handwritten label "NaOH 0.1M"
500 mL bottle with self-printed label 'Magnesium Sulfate, anhydrous'
1L poly with handwritten label "NaOH 1N"

Notes:

L - Liter(s)

Gal - Gallon(s)

mL - Milliliter(s)

Poly - polyethylene

% - Percent