



## CLEANING SPILL CONTAINMENT BUCKETS

### Program Manual



**Environmental Chemical Solutions**  
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## REMOVING FLUIDS FROM SPILL BUCKETS

**Required: Personal Protective Equipment:** Safety Cones, Gloves, Vest, Goggles  
**Equipment Needed:** GoldCrew ½ gal sprayer w/StoreCare P2, APU100 Pads, Brush

**\*\*To mix P2 add 5 FULL PUMPS of StoreCare P2 to the GoldCrew ½ gallon sprayer, slowly fill with water \*\***

- Safety Cones (at least four)
- Chemical resistant gloves
- Puncture resistant gloves - Use to prevent cuts and punctures.
- Reflective safety vest. - Use to increase visibility
- Safety Glasses/Goggles - Use to prevent absorbent from entering eyes.

JOB STEPS	POTENTIAL HAZARDS	RECOMMENDED ACTION
1. Gather PPE	Carrying too much. Traffic may not see you. Strains	<b>Organize.</b> Make two trips--cones first. Use hand truck or dolly for cones. Wear vest while walking with cones. Place yourself on the side of the fill where you face traffic and can look for traffic.
2. Place cones around area where working.	Traffic may not see you. Slipping/falling.	Place cones so that the immediate area you are working in is well marked. Keep a tight pattern but leave room to work. Be observant at all times. <b>Stay inside of marked area.</b>
3. Remove tank lids.	Lifting, traffic, sharp edges, fumes, back pressure, smashing fingers	Use proper lifting--always use both hands. Be observant of surroundings. Do not place face directly over manhole when lifting lid.
4. Apply light spray of <b>StoreCare P2</b> solution over spill bucket opening for vapor suppression.	Vapors, traffic, fuel on hands, cuts	Use StoreCare P2 to suppress vapors. Be observant. Wear gloves (chemical resistant) & glasses or goggles.
5. If <b>ONLY WATER</b> , spray with StoreCare <b>P2</b> scrub and sorb with pads. Make sure there are <b>NO DRIPPING PADS</b>	Lifting, traffic, Water in eyes or on hands, cuts. Slamming fingers with lid, traffic	Be observant. Wear goggles and gloves (chemical resistant). Don't rush. Be observant. Wear puncture resistant gloves.
6. If <b>gas and water mixture</b> , <b>CALL FOR PUMP OUT</b>	Stretching, traffic, sharp edges, vapors, traffic, smashing fingers	Use proper lifting--always use both hands. <sup>1</sup> Be observant of surroundings. Wear puncture resistant gloves.
7. If <b>pure gas</b> , <b>CALL FOR PUMP OUT</b>	Vapors, traffic, slipping/tripping	Be observant. Wear gloves (chemical resistant) & glasses or goggles.
8. GO TO <b>CLEANING PROTOCOL</b>	Lifting, traffic, sharp edges, traffic, smashing fingers Carrying too much; strains, slips & trips  GO TO <b>CLEANING PROTOCOL</b>	Be observant. Wear gloves (chemical resistant) & glasses or goggles. Do not place face directly over drum when pouring in gas mixture  Don't rush. Be observant.



# CLEANING SPILL BUCKETS

Inspect spill buckets daily

**Required: Personal Protective Equipment:** Safety Cones, Gloves, Vest, Goggles  
**Equipment Needed:** GoldCrew ½ gal sprayer w/StoreCare P2, APU100 Pads, Brush

**\*\*To mix P2 add 5 FULL PUMPS of StoreCare P2 to the GoldCrew ½ gallon sprayer, slowly fill with water \*\***

- Safety Cones (at least four) - Use to alert drivers about the work area. *Steps 1- 9*
- Chemical resistant gloves - *Step 4, 5, 6 &9*
- Puncture resistant gloves - Use to prevent cuts and punctures. *Steps 7, 8*
- Reflective safety vest. - Use to increase visibility. *All steps*
- Safety Glasses/Goggles - Use to prevent absorbent from entering eyes. *Steps 3 - 9*
- Store Care P2, brush and wipes. - *Step 4*

JOB STEPS	POTENTIAL HAZARDS	RECOMMENDED ACTION
1. Gather PPE	Carrying too much. Traffic may not see you. Strains	<b>Organize.</b> Make two trips--cones first. Use hand truck or dolly for cones. Wear vest while walking with cones. Place yourself on the side of the fill where you face traffic and can look for traffic.
2. Place cones around area where working.	Traffic may not see you. Slipping/falling.	Place cones so that the immediate area you are working in is well marked. Keep a tight pattern but leave room to work. Be observant at all times. <b>Stay inside of marked area.</b>
3. After removing tank lids, spray mist of StoreCare P2 solution over the opening for vapor suppression.	Lifting, traffic, sharp edges, <b>fumes</b> , back pressure, smashing fingers	Use proper lifting--always use both hands. Be observant of surroundings. Do not place face directly over manhole when opening lid.
4. If any water or fuel mixture in bucket.	<b>SEE REMOVING FLUIDS FROM SPILL BUCKET PROCEDURE</b>	<b>SEE REMOVING FLUIDS FROM SPILL BUCKET PROCEDURE.</b>
5. Clean spill bucket with StoreCare P2 solution.	Vapors, traffic, fuel on hands, cuts	<b>Spray inside bucket with StoreCare P2. Use brush to scrub and use pads to dry. Follow protocol on following page.</b>
6. Replace lids.	Slamming fingers with lid, traffic	Replace lid slowly. Don't rush. Be observant. Wear puncture resistant gloves.
7. Dispose of Wipes.	Traffic, sharp edges, back pressure, smashing fingers	As instructed.
8. Return equipment to proper storage area.	Carrying too much; strains, traffic, slipping/tripping	Don't rush. Be observant. Use hand truck or cone dolly. Make two trips if necessary.

## NOTES

- 1 Use Proper Lifting Techniques
  - Avoid lifting heavy/multiple objects (over 25 lbs.); get help.
  - Feet apart, bend at your knees.
  - Get down to the load, get a firm grip.
  - Lift with your legs, keep your back straight,
  - Keep the load close to your body, elbows in
  - Step in the direction you turn, don't twist.
  - Avoid over-reaching.
  - Those with "back problems" should restrict lifting activities (see store manager). If using a back belt remember a back belt will not prevent an injury only serve as a reminder to use proper lifting techniques. Follow the instructions for proper use provided with the back belt.

## Spill Bucket Cleaning Protocol

***Before starting be sure to have the Gold Crew ½ gallon sprayer filled with P2. If empty add P2 concentrate to sprayer using the mixing instructions on the previous page.***

### OPEN BUCKET

1. Spray P2 over bucket opening to help suppress any potential vapor.
2. Assess bucket condition. If dry proceed to **CLEAN** If wet, proceed to **ASSESS**

### **CLEAN – See Cleaning Protocol on the next page for additional detail**

1. Spray P2 on walls of bucket and all parts inside.
2. Using the scrub brush, thoroughly scrub all sidewalls, pipes and parts inside bucket.
3. Wrap pad around brush-head or use trash picker and wipe down inside of bucket, make sure you have cleaned all parts.
4. Use as many pads as necessary making sure they are not saturated to the point of dripping.

### ASSESS

1. Determine the type of fluid and how much is in the bucket

Is the fluid only fuel?

Is the fluid a mixture of water and some fuel?

Is the fluid water only?

2. For **fuel only** or for **water and some fuel** **STOP!** and **CALL FOR PUMP OUT**
3. For water only; spray with StoreCare P2, mix thoroughly, and adsorb with pads making sure enough pads are used so there are **no dripping pads**.

Then proceed to **CLEAN** the bucket following the cleaning instructions above.

## Cleaning Protocol (Continued)



1 - Always cone off the area; face traffic or driveway



2 - Spray sidewalls with StoreCare P2



3 - Scrub the entire inside of the bucket; make sure you get the hard to reach areas.



4 - Wrap the pad around the brush head and wipe out bucket.



5 - Get down reaching any area you might have missed with the brush/pad.



6 - Dispose as instructed.



# Analyticals

The first three sets of data were taken after three consecutive cleanings of the spill bucket

Matrix: Solid		Client: Environmental Chemical Solutions (ECS)		Collector: Client		
Sampled: 04/27/2015 10:30		Site:		Sample Type:		
Sample #: 355577-001		Client Sample #: #1				
Analyte	Result	DF	RDL	Units	Analyzed By	Notes
Method: EPA 1030 NELAC		Prep Method: Method		QCBatchID:		
Ignitability	Pass	1		mm/sec	05/06/15	rybechay
Method: EPA 8260B NELAC		Prep Method: 1311/5030		QCBatchID: QC1155179		
Benzene	ND	10	50	ug/L	05/11/15	liaoyuanz
Surrogate	% Recovery		Limits	Notes		
1,2-Dichloroethane-d4 (SUR)	107		70-145			
4-Bromofluorobenzene (SUR)	93		70-145			
Dibromodifluoromethane (SUR)	91		70-145			
Toluene-d8 (SUR)	102		70-145			

Matrix: Solid		Client: Environmental Chemical Solutions (ECS)		Collector: Client		
Sampled: 04/28/2015 10:45		Site:		Sample Type:		
Sample #: 355577-002		Client Sample #: #2				
Analyte	Result	DF	RDL	Units	Analyzed By	Notes
Method: EPA 1030 NELAC		Prep Method: Method		QCBatchID:		
Ignitability	Pass	1		mm/sec	05/06/15	rybechay
Method: EPA 8260B NELAC		Prep Method: 1311/5030		QCBatchID: QC1155179		
Benzene	ND	100	500	ug/L	05/12/15	liaoyuanz
Surrogate	% Recovery		Limits	Notes		
1,2-Dichloroethane-d4 (SUR)	121		70-145			
4-Bromofluorobenzene (SUR)	153		70-145	S	Surrogate recovery exceeds allowable lim.	
Dibromodifluoromethane (SUR)	116		70-145			
Toluene-d8 (SUR)	96		70-145			

Matrix: Solid		Client: Environmental Chemical Solutions (ECS)		Collector: Client		
Sampled: 04/29/2015 09:30		Site:		Sample Type:		
Sample #: 355577-003		Client Sample #: #3				
Analyte	Result	DF	RDL	Units	Analyzed By	Notes
Method: EPA 1030 NELAC		Prep Method: Method		QCBatchID:		
Ignitability	Pass	1		mm/sec	05/06/15	rybechay
Method: EPA 8260B NELAC		Prep Method: 1311/5030		QCBatchID: QC1155179		
Benzene	ND	10	50	ug/L	05/11/15	liaoyuanz
Surrogate	% Recovery		Limits	Notes		
1,2-Dichloroethane-d4 (SUR)	111		70-145			
4-Bromofluorobenzene (SUR)	119		70-145			
Dibromodifluoromethane (SUR)	98		70-145			
Toluene-d8 (SUR)	100		70-145			

This data set involves 2 inches of water allowed to set over night and absorbed into the pad after cleaning

Matrix: Solid		Client: Environmental Chemical Solutions (ECS)		Collector: Client		
Sampled: 04/30/2015 09:00		Site:		Sample Type:		
Sample #: 355577-004		Client Sample #: #4				
Analyte	Result	DF	RDL	Units	Analyzed By	Notes
Method: EPA 1030 NELAC	Prep Method: Method		QCBatchID:			
Ignitability	Pass	1		mm/sec	05/06/15 rybechay	
Method: EPA 8260B NELAC	Prep Method: 1311/5030		QCBatchID: QC1155179			
Benzene	210	25	125	ug/L	05/11/15 liaoyuanz	
Surrogate	% Recovery		Limits		Notes	
1,2-Dichloroethane-d4 (SUR)	110		70-145			
4-Bromofluorobenzene (SUR)	124		70-145			
Dibromodifluoromethane (SUR)	99		70-145			
Toluene-d8 (SUR)	99		70-145			

# Analyticals

The first three sets of data were taken after three consecutive cleanings of the spill bucket

Matrix: Solid		Client: Environmental Chemical Solutions (ECS)		Collector: Client		
Sampled: 05/26/2015 14:15		Site:		Sample Type:		
Sample #: 356717-001		Client Sample #: #1				
Analyte	Result	DF	RDL	Units	Analyzed By	Notes
Method: EPA 1030 NELAC		Prep Method: Method		QCBatchID:		
Ignitability	Pass	1		mm/sec	06/08/15 hanhkhong	
Method: EPA 8260B NELAC		Prep Method: 1311/5030		QCBatchID: QC1155780		
Benzene	ND	10	50	ug/L	06/04/15 liaoyuanz	
Surrogate	% Recovery		Limits	Notes		
1,2-Dichloroethane-d4 (SUR)	101		70-145			
4-Bromofluorobenzene (SUR)	136		70-145			
Dibromodifluoromethane (SUR)	100		70-145			
Toluene-d8 (SUR)	99		70-145			

Matrix: Solid		Client: Environmental Chemical Solutions (ECS)		Collector: Client		
Sampled: 05/27/2015 15:25		Site:		Sample Type:		
Sample #: 356717-002		Client Sample #: #2				
Analyte	Result	DF	RDL	Units	Analyzed By	Notes
Method: EPA 1030 NELAC		Prep Method: Method		QCBatchID:		
Ignitability	Pass	1		mm/sec	06/08/15 hanhkhong	
Method: EPA 8260B NELAC		Prep Method: 1311/5030		QCBatchID: QC1155786		
Benzene	ND	10	50	ug/L	06/05/15 liaoyuanz	
Surrogate	% Recovery		Limits	Notes		
1,2-Dichloroethane-d4 (SUR)	100		70-145			
4-Bromofluorobenzene (SUR)	119		70-145			
Dibromodifluoromethane (SUR)	99		70-145			
Toluene-d8 (SUR)	104		70-145			

Matrix: Solid		Client: Environmental Chemical Solutions (ECS)		Collector: Client		
Sampled: 05/28/2015 13:45		Site:		Sample Type:		
Sample #: 356717-003		Client Sample #: #3				
Analyte	Result	DF	RDL	Units	Analyzed By	Notes
Method: EPA 1030 NELAC		Prep Method: Method		QCBatchID:		
Ignitability	Pass	1		mm/sec	06/08/15 hanhkhong	
Method: EPA 8260B NELAC		Prep Method: 1311/5030		QCBatchID: QC1155780		
Benzene	ND	10	50	ug/L	06/04/15 liaoyuanz	
Surrogate	% Recovery		Limits	Notes		
1,2-Dichloroethane-d4 (SUR)	101		70-145			
4-Bromofluorobenzene (SUR)	114		70-145			
Dibromodifluoromethane (SUR)	102		70-145			
Toluene-d8 (SUR)	100		70-145			

This data set involves 2 inches of water allowed to set over night and absorbed into the pad after cleaning

Matrix: Solid		Client: Environmental Chemical Solutions (ECS)		Collector: Client		
Sampled: 05/29/2015 12:15		Site:		Sample Type:		
Sample #: 356717-004		Client Sample #: #4				
Analyte	Result	DF	RDL	Units	Analyzed By	Notes
Method: EPA 1030 NELAC	Prep Method: Method				QCBatchID:	
Ignitability	Pass	1		mm/sec	06/08/15 hanhkhong	
Method: EPA 8260B NELAC	Prep Method: 1311/5030				QCBatchID: QC1155786	
Benzene	ND	10	50	ug/L	06/05/15 liaoyuanz	
<u>Surrogate</u>	<u>% Recovery</u>		<u>Limits</u>	<u>Notes</u>		
1,2-Dichloroethane-d4 (SUR)	103		70-145			
4-Bromofluorobenzene (SUR)	103		70-145			
Dibromodifluoromethane (SUR)	101		70-145			
Toluene-d8 (SUR)	103		70-145			

## Client Sample Results

Client: Kleinfelder Inc  
Project/Site: ECS - Spill Bucket Sampling

TestAmerica Job ID: 490-87942-1  
SDG: 1001 North Harbor Blvd, Fullerton, CA

**Client Sample ID: SB-092215**

**Lab Sample ID: 490-87942-1**

Date Collected: 09/22/15 12:05

Matrix: Solid

Date Received: 09/23/15 09:10

### Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0500		mg/L			10/01/15 20:42	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130					10/01/15 20:42	50
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					10/01/15 20:42	50
Toluene-d8 (Surr)	97		70 - 130					10/01/15 20:42	50
Dibromofluoromethane (Surr)	112		70 - 130					10/01/15 20:42	50

### General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Ignitability	nb				mm/sec			10/05/15 14:03	1

## Client Sample Results

Client: Kleinfelder Inc  
Project/Site: ECS - Spill Bucket Sampling

TestAmerica Job ID: 490-88186-1  
SDG: 1001 North Harbor Blvd, Fullerton, CA

**Client Sample ID: SB-092315**

**Lab Sample ID: 490-88186-1**

Date Collected: 09/23/15 12:10

Matrix: Solid

Date Received: 09/24/15 09:20

### Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0500		mg/L			10/08/15 02:20	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130					10/08/15 02:20	50
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					10/08/15 02:20	50
Toluene-d8 (Surr)	125		70 - 130					10/08/15 02:20	50
Dibromofluoromethane (Surr)	102		70 - 130					10/08/15 02:20	50

### General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Ignitability	nb				mm/sec			10/05/15 14:03	1