

# EXHIBIT 3-3

Sampling Worksheet

U.S. Department of Labor  
Occupational Safety & Health Administration



Thu Jul 29, 2004 5:00pm

MOD	Date	Reporting ID	Inspection Number	Sampling Number
		211500	404178	82 H65
Establishment Name			Sampling Date	Shipping Date
Sun Chemical Inc.			10/10/12	10/26/12
Person Performing Sampling (Signature)		Print Last Name	CSHO ID	
(b) (7)(C)		(b) (7)(C)	(b) (7)(C)	
Employee (Name, Address, Telephone Number)			Exposure Information	a. Number b. Duration
Bulk			Frequency	Daily
Job Title		Occupation Code	Weather Conditions	Photo(s)
			Indoor	
PPE (Type and Effectiveness)			Pump Checks and Adjustments	
			N/A	
Job Description, Operation, Work Location(s), Ventilation and Controls				
This is a raw material which is used to make printing ink in the pre-mix room where dust collection system is installed prior to an explosion that occurred.				

Lab Sample Number		Sampling Data		
Sample Submission Number	(b) (7)(C)	Carbon		
Sample Type	Bulk			
Sample Media	na			
Filter/Tube No.	na			
Time On/Off	na			
Total Time (in minutes)	na			Positive for combustibility of carbon black
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min	na			
Volume (in liters)	na			
Net Sample Weight (in mg)	na			
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations			
Combustibility				

Interference and IIR Comments to Lab Is it possible to calculate minimum static energy that is required to ignite?	Supporting Samples	Chain of Custody	Initials	Date
	(b) (7)(C) carbon black	Seals Intact	Y N	
		Received in Lab		
		Received by Analyst		
		Analysis Complete		
		Calculation Checked		
	Supervisor OK'd			
		Case File Page		01



Health Sampling Details - Print Preview

Sampling Header Information										
Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 82465								
Activity Type: Enforcement	Activity Final Status:	Sampling Date: 10/10/2012								
Employee Name:										
Health Sampling Details										
Sample Detail for Sample ID: 85774										
Sampling Detail Info										
Sample Submission ID: 85774	Sample Submission Number:	CARBON								
Sample Method:	Hazard Class:	Physical								
Sample Method #:	Substance Codes:	Carbon Black								
Comments:	Lab Analysis Requested?:	Y								
Sample Description:										
Sample Location: 390 Central Ave , EAST RUTHERFORD, NJ 07073										
Equipment Info										
Serial Number:	Equipment type:									
Bar Code:	Manufacturer:									
Field Name:	Make:									
Pre Calibrate Session ID:	Model:									
Post Calibrate Session ID:										
Primary details										
Filter/Tube Number:	Sample Type:	Bulk								
Total Sample Time (Mins):	Volume:									
Total Sample Time Override:	Volume Units:									
Total Sample Time Override reason:	Rush Indicator:	N								
Flow Rate:	Rush Reason:									
Flow Rate Unit:	Screening Sample:	N								
Lab Exposure Type:	Practical Size Fraction:									
Lab Sample Number:										
Sample Type and Media: Carbon Black										
Readings										
<table border="1"> <thead> <tr> <th colspan="2">Sample Reading</th> </tr> </thead> <tbody> <tr> <td>Time In</td> <td>Time Out</td> </tr> </tbody> </table>		Sample Reading		Time In	Time Out	<table border="1"> <thead> <tr> <th colspan="2">Pump Check</th> </tr> </thead> <tbody> <tr> <td>Time</td> <td>Read/Action/Loca...</td> </tr> </tbody> </table>	Pump Check		Time	Read/Action/Loca...
Sample Reading										
Time In	Time Out									
Pump Check										
Time	Read/Action/Loca...									
Direct Reading Information										

304 355  
287

FINAL

Sample Number: 82465  
 Establishment Name: Sun Chemical Inc  
 Activity ID: 704178  
 Activity Type: Enforcement

**Health Sampling Information**

**General Info**

CSHO/Consultant ID: (b) (7)(C)  
 CSO/Consultant RID: 0214500  
 Draft Sampling Detail Y  
 Exists?:  
 Sampling Location: 390 Central Ave, EAST RUTHERFORD, NJ 07073

Sampling Date: 10/10/2012  
 Sampling Purpose: Compliance assessment  
 Additional Sampling Information: The sample is residue collected from the vessel, 206, which was involved in a fire during the manufacture of printing ink. The ingredients before the fire is as follows: Linseed oil, Bentone, Gilsonite, Carbon black, and Clay.

**Blank Sampling Selection**

Submission Num...	Media Type
JK206	Carbon Black

**Employee/Area Info**

Sampling Subject Type: Area

**Sampled Subject**

Employee First Name: Country: USA  
 Employee Last Name: State:  
 Street Address 1:  
 Street Address 2:  
 Phone Number: US Extn :

**Sampled Employee Job**

Job Title\*: (b) (7)(C)  
 Occupation Title:  
 Job Process: Mixing it with other ingredients for manufacturing ink  
 Job Location\*: In pre-mix room  
 Job Materials: carbon black

Job Surroundings:  
 Observed Workload:  
 Additional Job Description:  
 Job Task:

**Sampled Employee Exposure**

These Samples\*: Other Concentration  
 These Samples - Other:  
 Exposure of person Y monitored is:  
 If not typical, please explain:  
 Exposure Routes\*: Inhalation

Specify unusual environmental working conditions (e.g temperature, pressure, humidity, cleanliness etc):  
 Additional exposure description:  
 Additional Control Description:  
 Exposure Duration\*: 1.00000  
 Unit for Duration: year

Direct Reading Type:		Total Sample Time		Total Sample Time		Total Sample Time		Total Sample Time	
Total Sample Time (Mins):		Override:		Override		Override		Override	
				reason:					
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
<b>Sample Result</b>									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

Page 1 of 2

1. Reporting ID 214500	2. Inspection Number 704178	3. Sampling Number 82465	
4. Establishment Name SUN CHEMICAL, INC.			
5. CSHO ID (b)(7)(C)	6. Sampling Date 10 OCT 2012	7. Shipping Date 26 OCT 2012	8. Date Result Received
9. Job Title Not applicable		10. Occupational Code	11. Number Exposed
12. Frequency of Exposure			

Exposure Summary

14. Substance Code	15. Rqstd	16. Smp Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	PPK	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 918 and submit them directly to IMIS

26. Analyst's Comments (Analytical Method) MMAB 353-3

(b)(7)(C)

27. Chain of Custody	Init. Date
a. Seals Intact	Y
b. Rec'd In Lab	(b)(7)(C) 02 NOV 2012
c. Rec'd by Anal.	23 NOV 2012
d. Anal. Completed	05 DEC 2012
e. Calc. Checked	07 DEC 2012
f. Supr. OK'd	07 DEC 2012

L29457 M102 This sample had insufficient fine material (<200 mesh) for Class II testing, Kst testing was performed.

Results for Kst Test for explosibility: Sample was tested to determine if the material is explosive. The testing was done using a BOM 20 liter low turbulence chamber. Testing produced a positive result, this material is explosive. As a reference, historic Pulverized Pittsburgh Coal (80% passing 200 mesh), in a BOM 20 liter chamber has an average Kst of 25 bar\*meter/sec. Pulverized Pittsburgh Coal with 100 % passing 200 mesh has an average Kst of 50 bar\*meter/sec. The results obtained from this equipment can NOT be used in designing or engineering protective safety equipment.

The Kst was 9.54 bar\*meters per second with a Pressure Ratio of 6.46.

Results of the sieve size analysis were:  
 < 20 mesh = 81 %  
 < 40 mesh = 39 %  
 < 200 mesh = 2.6 %  
 % Moisture = 0.3 %

28 Submission number **NEW** CARBON

29 Lab Sample No. L29457 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

M102 MAXIMUM NORMALIZED DPDT 0.5400 BM/E bm/s

Sampling Number: 82465

266 357  
289

Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

28 Submission number **0000** CARBON

29 Lab Sample No. L29457  
(Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

E101 Explosion Severity N NA  
M104 Moisture Content 0.3000 % MOIST

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value

- M102
- M104
- E101

[Empty box]

- L MILLIGRAMS PER LITER (URINE)
- C PICO CURIES PER LITER (RADON GAS)
- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- BM/S Bar Meters per Second
- D MICROGRAMS PER DECILITER (BLOOD)
- P PARTS PER MILLION
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

NA The sample was not analyzed.

Analyte codes are chosen by the laboratory. The I, H, should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

307 - 358  
290



# Air Sampling Worksheet

U.S. Department of Labor  
Occupational Safety and Health Administration



Thu Jul 29, 2004 5:00pm

MOD	Date	Reporting ID 214500	Inspection Number 140 178	Sampling Number 82645
Establishment Name Sun Chemical Inc		Person Performing Sampling (Signature) (b)(7)(C)	Print Last Name (b)(7)(C)	Shipping Date 10/27/10
Employee (Name, Address, Telephone Num) (b)(7)(C)		Exposure Information	a. Number	CSHO ID (b)(7)(C)
Frequency Daily		Weather Conditions Indoor	Photo(s)	
PPE (Type and Effectiveness)		Pump Checks and Adjustments		

Job Description, Operation, Work Location(s), Ventilation and Controls  
 Pumping carbon black Petroleum distillate, & Benton into a vessel and mixing them for the final product. Dust collection system was involved in a fire

Pump Number:	Lab Sample Number	Sample Submission Number	Sample Type	Sample Media	Filter/Tube No.	Time On/Off	Total Time (in minutes)	Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min	Volume (in liters)	Net Sample Weight (in mg)	Analyze Samples for:
		206	Bulk	none							Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations

Interference and IIR Comments to Lab This residue was from vessel # 206 in where following ingredients were blended.	Supporting Samples	Chain of Custody	Initials	Date
	a. Blanks	Scals Intact	(b)(7)(C)	
	b. Bulks	Received in Lab		
	(b)(7)(C) 206	Received by Analyst		
		Analysis Complete		
		Calculation Checked		
		Supervisor (K'd)		

OSHA-91A (Rev. 6/97)  
 373  
 205

Pre-Sampling Calibration Records			
P K T	Pump Mfg. & SN	Flow Rate Calculations	
	Voltage Checked? <input type="checkbox"/> Yes <input type="checkbox"/> No	Sampling Number 82645	
	Location/T & Alt.		
	Flow Rate	Method <input type="checkbox"/> Bubble <input type="checkbox"/> PR	Initials
			Date/Time
Post-Sampling Calibration Records			
P K T	Location/T & Alt.	Flow Rate Calculations	
	Flow Rate	Initials	Date/Time
Sampling Weight Calculation			
Filter No			
Final Weight (mg)			
Initial Weight (mg)			
Weight Gained (mg)			
Blank Adjustment			
Net Sample Weight (mg)			

Calculations and Notes

Linseed oil, clay, Bentonite, Aiksonite, printer & refined oil. Material safety data sheets for the above materials are sent with the sampling sheets except linseed oil

**Air Sampling Worksheet**

**U.S. Department of Labor  
Occupational Safety and Health Administration**

Thu Jul 29, 2008 3:00pm

MOD	Date	Reporting ID	Inspection Number	Sampling Number
		11100	11100	206
Establishment Name		Person Performing Sampling (Signature)	Print Last Name	Shipping Date
Sun Chemical Inc		(b)(7)(C)	(b)(7)(C)	10/27/11
Employee (Name, Address, Telephone No)		Exposure Information	a. Number	b. Duration
(b)(7)(C)		Frequency		
(b)(7)(C)		Weather Conditions	Photo(s)	
(b)(7)(C)		Occupation Code	Y	
(b)(7)(C)		Pump Checks and Adjustments		

Job Description, Operation, Work Location(s), Ventilation and Controls  
 Pumping carbon black Petroleum distillate, 4 Benton into a vessel and mixing them for the final product. Dust collection system was involved in a fire.

Pump Number:		Sampling Data	
Lab Sample Number	L29454		
Sample Submission Number	206		
Sample Type	Bulk		High carbon molecular weight is found.
Sample Media	none		
Filter/Tube No.			
Time On/Off			
Total Time (in minutes)			
Flow Rate	<input type="checkbox"/> l/min <input type="checkbox"/> cc/min		
Volume (in liters)			
Net Sample Weight (in mg)			

Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations
Carbon Black	
Petroleum Distillate	

Reference and IH Comments to Lab  
 This residue was from vessel # 206 in where following ingredients were blended.

Supporting Samples	Chain of Custody
a. Blanks	Seals Intact
b. Blanks	Received in Lab
(b)(7)(C) 206	Received by Analyst
	Analysis Complete
	Calculation Checked
	Supervisor OK'd

206  
 317  
 250

Sampling Calibration Records					
Pump Mfg. & SN Voltage Checked? <input type="checkbox"/> Yes <input type="checkbox"/> No Location/T & Alt.	Flow Rate Calculations				
	Sampling Number 82645				
	Flow Rate	Method <input type="checkbox"/> Bubble <input type="checkbox"/> PR	Initials	Date/Time	
Sampling Calibration Records					
Location/T & Alt.  Flow Rate	Flow Rate Calculations				
	Initials	Date/Time			
Sampling Weight Calculations					
Filter No					
Final Weight (mg)					
Initial Weight (mg)					
Weight Gained (mg)					
Blank Adjustment					
Net Sample Weight (mg)					

Calculations and Notes

Linseed oil, clay, Bentone, Arkonite, printer & refined oil. Material Safety Data sheets for the above materials are sent with the sampling sheets except linseed oil

Sampling Report U.S. Department of Labor Occupational Safety and Health

1. Reporting ID: 214500  
 2. Inspection Number: 740178  
 3. Sampling Number: 82645  
 4. Establishment Name: SUN CHEMICAL, INC.  
 5. CSHO ID: (b)(7)(C)  
 6. Sampling Date: 10 OCT 2012  
 7. Shipping Date: 27 OCT 2012  
 8. Date Result Received:  
 9. Job Title: Not applicable  
 10. Occupational Code:  
 11. Number Exposed:  
 12. Frequency of Exposure:

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	PPH	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

26. Analyst's Comments (Analytical Method): GC/MS ANALYSIS

Sample bulks were extracted with carbon disulfide and filtered to remove suspended particles. Samples were analyzed by GC MASS SPEC.  
 L29453: was none detected.  
 L29454: Ultra trace amounts of analytes detected were C20- C22 aliphatic hydrocarbons, N-(1,2,3,3,3-pentafluoropropenyl) Aziridine 3,3-diphenyl-5-methyl (3H)pyrazole, Mixture of cholestane, coprostan and 24-methyl cholestane and some compounds not properly identified by MASS SPEC library.  
 L29455: Analytes detected were trace amounts of C18- C25 aliphatic hydro carbons and some compounds not properly identified by MASS SPEC library.  
 L29456: Analytes detected were trace amounts of C18-C20 aliphatic hydrocarbons, Cholestane and some compounds not properly identified by MASS SPEC library

27. Chain of Custody

	Init.	Date
a. Seals Intact	Y	
b. Rec'd In Lab	(b)(7)(C)	02 NOV 2012
c. Rec'd by Anal.		14 NOV 2012
d. Anal. Completed		16 NOV 2012
e. Calc. Checked		16 NOV 2012
f. Supr. OK'd		16 NOV 2012

28 Submission number: 206

29 Lab Sample No. L29454 (Minutes/Type) B

30. Analyte	31. Analysis Results/ 32. Sample included in calculations of
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M125 Qualitative Mass-Spec Analysis

Because the results for air samples are used in further calculations, the number of figures reported in section 3f may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
 M125

- L MILLIGRAMS PER LITER (URINE)
- C PICO CURIES PER LITER (RADON GAS)
- D MICROGRAMS PER DECILITER (BLOOD)
- P PARTS PER MILLION

Sampling Number: 82645

268  
 252-319



Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- BM/S Bar Meters per Second
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 82645

253  
~~269~~  
320

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID: 214500  
 2. Inspection Number: 740178  
 3. Sampling Number: 82645  
 4. Establishment Name: SUN CHEMICAL, INC.  
 5. CSHQ ID: (b) (7)(C)  
 6. Sampling Date: 10 OCT 2012  
 7. Shipping Date: 27 OCT 2012  
 8. Date Result Received:  
 9. Job Title: Not applicable  
 10. Occupational Code:  
 11. Number Exposed:  
 12. Frequency of Exposure:

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation Information							
									No Cit	FTA	Over Exp	Eng	PPE	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 918 and submit them directly to IMIS

26. Analyst's Comments (Analytical Method): OSHA ID-196  (b) (7)(C)  Reporting Limit = 0.1 mg SAE = 0.184	27. Chain of Custody	Init. Date
	a. Seals Intact	Y
	b. Rec'd In Lab	(b) (7)(C) 02 NOV 2012
	c. Rec'd by Anal.	30 NOV 2012
	d. Anal. Completed	05 DEC 2012
	e. Calc. Checked	06 DEC 2012
	f. Supr. OK'd	06 DEC 2012

28 Submission number: 206

29 Lab Sample No. L29454  
 (Minutes/Type) B

30. Analyte: 0527 Carbon Black	31. Analysis Results/ 32. Sample included in calculations of
% ND	

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.  
 The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code: 0527  
 SAE Value:

L MILLIGRAMS PER LITER (URINE)	D MICROGRAMS PER DECILITER (BLOOD)
C PICO CURIES PER LITER (RADON GAS)	P PARTS PER MILLION
F FIBERS PER CUBIC CENTIMETER	X MICROGRAMS
M MILLIGRAMS PER CUBIC METER	% PERCENT
Y MILLIGRAMS	B FIBERS PER MM2
N NONE	G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 82645

325  
 376  
 308

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 82645

309  
~~326~~ 377



Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID 214500	2. Inspection Number 740178	3. Sampling Number 82645
4. Establishment Name SUN CHEMICAL, INC.		
5. CSHO ID 0709	6. Sampling Date 10 OCT 2012	7. Shipping Date 27 OCT 2012
9. Job Title Not applicable		10. Occupational Code
11. Number Exposed		
12. Frequency of Exposure		

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PHL	21. Adj	22. Severity	23. Citation information						
									No Cit	FTA	Ovar Exp	Eng	PPH	Trng	Med

TWA calculated on actual time sampled  
The I. H. is free to make changes on the Form 918 and submit them directly to IHIS

26. Analyst's Comments (Analytical Method)  GC/MS ANALYSIS  Sample bulks were extracted with carbon disulfide and filtered to remove suspended particles. Samples were analyzed by GC MASS SPEC. L29453: was none detected. L29454: Ultra trace amounts of analytes detected were C20- C22 aliphatic hydrocarbons, N-(1,2,3,3,3-pentafluoropropenyl) Aziridine 3,3-diphenyl-5-methyl (3H)pyrazole, Mixture of cholestane, coprestane and 24-methyl cholestane and some compounds not properly identified by MASS SPEC library. L29455: Analytes detected were trace amounts of C18- C25 aliphatic hydro carbons and some compounds not properly identified by MASS SPEC library. L29456: Analytes detected were trace amounts of C18-C20 aliphatic hydrocarbons, Cholestane and some compounds not properly identified by MASS SPEC library	27. Chain of Custody	Init. Date	
	a. Seals Intact		Y
	b. Rec'd In Lab	0709	02 NOV 2012
	c. Rec'd by Anal.		14 NOV 2012
	d. Anal. Completed		15 NOV 2012
	e. Calc. Checked		16 NOV 2012
f. Supr. OK'd		16 NOV 2012	

28 Submission number 0709 206

29 Lab Sample No. L29454 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

M125 Qualitative Mass-Spec Analysis

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
M125

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L MILLIGRAMS PER LITER (URINE) D MICROGRAMS PER DECILITER (BLOOD)  
C PICO CURIES PER LITER (RADON GAS) F PARTS PER MILLION

Sampling Number: 02645

310  
~~227~~ 378

Air Sampling Report U. S. Department of Labor Occupational Safety and Health Administration

- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- BM/S Bar Meters per Second
- X MICROGRAMS
- ‡ PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 62645

311  
328  
379

**Air Sampling Worksheet**

U.S. Department of Labor  
Occupational Safety & Health Administration



Thu Jul 29, 2004 5:00pm

MOD	Date	Reporting ID 214500	Inspection Number 240 178	Sampling Number 82646
Establishment Name Sun Chemical			Sampling Date 10/10/12	Shipping Date 10/26/12
Person Performing Sampling (Signature) (b)(7)(C)		Print Last Name (b)(7)(C)		CSHO (b)(7)(C)
Employee (Name, Address, Telephone Number) (b)(7)(C)			Exposure Information a. Number 1	b. Duration 28
Job Title (b)(7)(C)			Frequency daily	Weather Conditions indoor
PPE (Type and Effectiveness) Safety glasses & alphas.			Pump Checks and Adjustments	
Job Description, Operation, Work Location(s), Ventilation and Controls Operator was adding Eukonite into the vessel that contained Petroleum distillates. This sample is what is left in the vessel. Fire & explosion occurred when the operator was adding Eukonite into the vessel that contained Petroleum distillates. This sample is what is left in the vessel.				
Pump Number:		Sampling Data		
Lab Sample Number				
Sample Submission Number	(b)(7)(C) 306			
Sample Type	Bulk	(Residue from tank 306)		
Sample Media	/			
Filter/Tube No.	/			
Time On/Off	/	Not detected		
Total Time (in minutes)	/			
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min	/			
Volume (in liters)	/			
Net Sample Weight (in mg)	/			
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations			
Petroleum Distillates & Eukonite				
Interference and IH Comments to Lab black residue that was left in the vessel, 306, after the fire & explosion		Supporting Samples a. Blanks		Chain of Custody
		b. Bunks (b)(7)(C) 306		Seals Intact Received in Lab Received by Analyst Analysis Complete Calculation Checked Supervisor OK'd
				Initials (b)(7)(C)
				Date
				Case File Page

272 288 329



OIS		Ready For Exposure Evaluation									
<b>Sampling Header Information</b>											
Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 82646									
Activity Type: Enforcement	Activity Final Status:	Sampling Date: 10/10/2012									
Employee Name:											
<b>Health Sampling Details</b>											
Sample Detail for Sample ID: 85914											
<b>Sampling Detail Info</b>											
Sample Submission ID: 85914	Sample Submission Number: 306	Hazard Class: Chemical									
Sample Method:		Substance Codes: Petroleum Distillates (Naphtha) (Rubber Solvent)									
Sample Method #:		Lab Analysis Requested?: Y									
Comments:											
Sample Description: Black residue in tank 306 that was left after the tank caught on fire.											
Sample Location: 390 Central Ave , EAST RUTHERFORD, NJ 07073											
<b>Equipment Info</b>											
Serial Number:	Equipment type:										
Bar Code:	Manufacturer:										
Field Name:	Make:										
Pre Calibrate Session ID:	Model:										
Post Calibrate Session ID:											
<b>Primary details</b>											
Filter/Tube Number:	Sample Type:										
Total Sample Time (Mins):	Volume:										
Total Sample Time Override:	Volume Units:										
Total Sample Time Override reason:	Rush Indicator:										
Flow Rate:	Rush Reason:										
Flow Rate Unit:	Screening Sample :										
Lab Exposure Type:	Practical Size Fraction:										
Lab Sample Number:											
Sample Type and Media:											
<b>Readings</b>											
<table border="1"> <thead> <tr> <th colspan="2">Sample Reading</th> </tr> </thead> <tbody> <tr> <td>Time In</td> <td>Time Out</td> </tr> </tbody> </table>		Sample Reading		Time In	Time Out	<table border="1"> <thead> <tr> <th colspan="2">Pump Check</th> </tr> </thead> <tbody> <tr> <td>Time</td> <td>Read/Action/Loca...</td> </tr> </tbody> </table>		Pump Check		Time	Read/Action/Loca...
Sample Reading											
Time In	Time Out										
Pump Check											
Time	Read/Action/Loca...										
<b>Direct Reading Information</b>											

Total Sample Time (Mins):	Direct Reading Type:	Total Sample Time Override:							
		Total Sample Time Override reason:							
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
<b>Sample Result</b>									
Substance Code	Lab Result... Value	Units	Weight	Weight U...					
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID 214500	2. Inspection Number 740178	3. Sampling Number 82646
4. Establishment Name SUN CHEMICAL, INC.		
5. CSHO ID 070	6. Sampling Date 10 OCT 2012	7. Shipping Date 26 OCT 2012
8. Date Result Received		
9. Job Title Not applicable		10. Occupational Code
11. Number Exposed		
12. Frequency of Exposure		

Exposure Summary

14. Substance Code	15. Rqstd	16. Smp1 Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FPA	Over Exp	Eng	PPE	Trng	Med	OTH

TWA calculated on actual time sampled.  
The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

26. Analyst's Comments (Analytical Method)  The reporting limit for L29454 is 0.332 %, for L29455 is 0.702 % and for L29456 is 0.395 % by waight.	27. Chain of Custody	Init. Date
	a. Seals Intact	Y
	b. Rec'd In Lab	02 NOV 2012
	c. Rec'd by Anal.	13 NOV 2012
	d. Anal. Completed	14 NOV 2012
	e. Calc. Checked	15 NOV 2012
	f. Supr. OK'd	15 NOV 2012

28 Submission number 306  
29 Lab Sample No. L29455 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

2037 Petroleum Distillates (Naphtha) (Rubber Solvent) % ND

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.  
The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
2037

[Redacted]

- L MILLIGRAMS PER LITER (URINE)
- C PICO CURIES PER LITER (RADON GAS)
- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- D MICROGRAMS PER DECILITER (BLOOD)
- P PARTS PER MILLION
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM<sup>2</sup>
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 82646

276 343 2012



Wipe Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID: 214500  
 2. Inspection Number: 740178  
 3. Sampling Number: 82646  
 4. Establishment Name: SUN CHEMICAL, INC.  
 5. CSNO ID: (b)(7)(C)  
 6. Sampling Date: 10 OCT 2012  
 7. Shipping Date: 26 OCT 2012  
 8. Date Result Received:  
 9. Job Title: Not applicable  
 10. Occupational Code:  
 11. Number Exposed:  
 12. Frequency of Exposure:

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	PPR	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 918 and submit them directly to IMIS

25. Analyst's Comments (Analytical Method): GC/MS ANALYSIS

Sample bulks were extracted with carbon disulfide and filtered to remove suspended particles. Samples were analyzed by GC MASS SPEC.  
 L29453: was none detected.  
 L29454: Ultra trace amounts of analytes detected were C20- C22 aliphatic hydrocarbons, N-(1,2,3,3,3,- pentafluoropropenyl) Aziridine 3,3-diphenyl-5-methyl (3H)pyrazole, Mixture of cholestane, coprestane and 24-methyl cholestane and some compounds not properly identified by MASS SPEC library.  
 L29455: Analytes detected were trace amounts of C18- C25 aliphatic hydro carbons and some compounds not properly identified by MASS SPEC library.  
 L29456: Analytes detected were trace amounts of C18-C20 aliphatic hydrocarbons, Cholestane and some compounds not properly identified by MASS SPEC library

27. Chain of Custody

a. Seals Intact	Init.	Date
	(b)(7)(C)	Y
b. Rec'd In Lab		02 NOV 2012
c. Rec'd by Anal.		14 NOV 2012
d. Anal. Completed		16 NOV 2012
e. Calc. Checked		16 NOV 2012
f. Supr. OR'd		16 NOV 2012

28 Submission number: JK 306

29 Lab Sample No. L29455 (Minutes/Type): B

30. Analyte: M125  
 31. Analysis Results/  
 32. Sample included in calculations of

M125 Qualitative Mass-Spec Analysis

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures.

The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code: SAE Value  
 M125

L MILLIGRAMS PER LITER (URINE) D MICROGRAMS PER DECILITER (BLOOD)  
 C PICO CURIES PER LITER (RADON GAS) P PARTS PER MILLION

Sampling Number: 82646

306-358  
 291





Pump Mfg. & SN					
Voltage Checked?		Flow Rate Calculations			
<input type="checkbox"/> Yes <input type="checkbox"/> No		Sampling Number 82646			
Location/T & Alt.					
Flow Rate		Method	Initials	Date/Time	
		<input type="checkbox"/> Bubble <input type="checkbox"/> PR			
Pump Sampling/Calibration Records					
Location/T & Alt.		Flow Rate Calculations			
Flow Rate		Initials		Date/Time	
Sampling Weight Calculations					
Filter No					
Final Weight (mg)					
Initial Weight (mg)					
Weight Gained (mg)					
Blank Adjustment					
Net Sample Weight (mg)					

Calculations and Notes

322  
271  
255

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID 214500 2. Inspection Number 740178 3. Sampling Number **82646**

4. Establishment Name SUN CHEMICAL, INC.

5. CSHO ID **(b)(7)(C)** 6. Sampling Date 10 OCT 2012 7. Shipping Date 26 OCT 2012 8. Date Result Received

9. Job Title Not applicable 10. Occupational Code 11. Number Exposed

12. Frequency of Exposure

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation Information							
									No Cit	FTA	Over Exp	Eng	FPE	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

26. Analyst's Comments OSHA 48 (Analytical Method)

The reporting limit for L29454 is 0.332 %, for L29455 is 0.702 % and for L29456 is 0.395 % by weight.

27. Chain of Custody	Init. Date
a. Seals Intact	Y
b. Rec'd in Lab	02 NOV 2012
c. Rec'd by Anal.	13 NOV 2012
d. Anal. Completed	14 NOV 2012
e. Calc. Checked	15 NOV 2012
f. Supr. OK'd	15 NOV 2012

28 Submission number **306**

29 Lab Sample No. L29455 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

2037 Petroleum Distillates (Naphtha) (Rubber Solvent) % ND

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value 2037

[Empty box for results]

- L MILLIGRAMS PER LITER (URINE)
- C PICO CURIES PER LITER (RADON GAS)
- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- D MICROGRAMS PER DECILITER (BLOOD)
- P PARTS PER MILLION
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 82646

323  
272  
256

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration.

Page 1 of 2

1. Reporting ID 214500 2. Inspection Number 704178 3. Sampling Number 82646  
 4. Establishment Name SUN CHEMICAL, INC.  
 5. CSHO ID (b) (7)(C) 5. Sampling Date 10 OCT 2012 7. Shipping Date 26 OCT 2012 8. Date Result Received  
 9. Job Title Not applicable 10. Occupational Code 11. Number Exposed  
 12. Frequency of Exposure

Exposure Summary

(SUPPLEMENT TO THE ORIGINAL AIR SAMPLING REPORT)

14. Substance Code	15. Rqstd	16. Smp Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation Information				
								No	FEA Over	Eng	PPE Trng	Med	OTH
								Cit	Exp				

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 918 and submit them directly to IMIS

26. Analyst's Comments (Analytical Method) GC/MS ANALYSIS

27. Chain of Custody	Init.	Date
a. Seals Intact		Y
b. Rec'd In Lab	(b) (7)(C)	02 NOV 2012
c. Rec'd by Anal.		14 NOV 2012
d. Anal. Completed		16 NOV 2012
e. Calc. Checked		16 NOV 2012
f. Supr. OK'd		16 NOV 2012

Sample bulks were extracted with carbon disulfide and filtered to remove suspended particles. Samples were analyzed by GC MASS SPEC.  
 L29453: was none detected.  
 L29454: Ultra trace amounts of analytes detected were C20- C22 aliphatic hydrocarbons, N-(1,2,3,3,3-pentafluoropropenyl) Aziridine 3,3-diphenyl-5-methyl (3H) pyrazole, Mixture of cholestane, coprestane and 24-methyl cholestane and some compounds not properly identified by MASS SPEC library.  
 L29455: Analytes detected were trace amounts of C18- C25 aliphatic hydro carbons and some compounds not properly identified by MASS SPEC library.  
 L29456: Analytes detected were trace amounts of C18-C20 aliphatic hydrocarbons, Cholestane and some compounds not properly identified by MASS SPEC library

28 Submission number (b) (7)(C) 308

29 Lab Sample No. L29455 (Miriutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

M125 Qualitative Mass-Spec Analysis

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
 M125

L MILLIGRAMS PER LITER (URINE) D MICROGRAMS PER DECILITER (BLOOD)  
 C PICO CURIES PER LITER (RADON GAS) P PARTS PER MILLION

Sampling Number: 82646

258  
~~325~~  
 274

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration.

Page 2 of 2

F	FIBERS PER CUBIC CENTIMETER	X	MICROGRAMS
M	MILLIGRAMS PER CUBIC METER	‡	PERCENT
Y	MILLIGRAMS	E	FIBERS PER MM2
N	NONE	G	MILLION PARTICLES PER CUBIC FOOT (MPPCF)

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

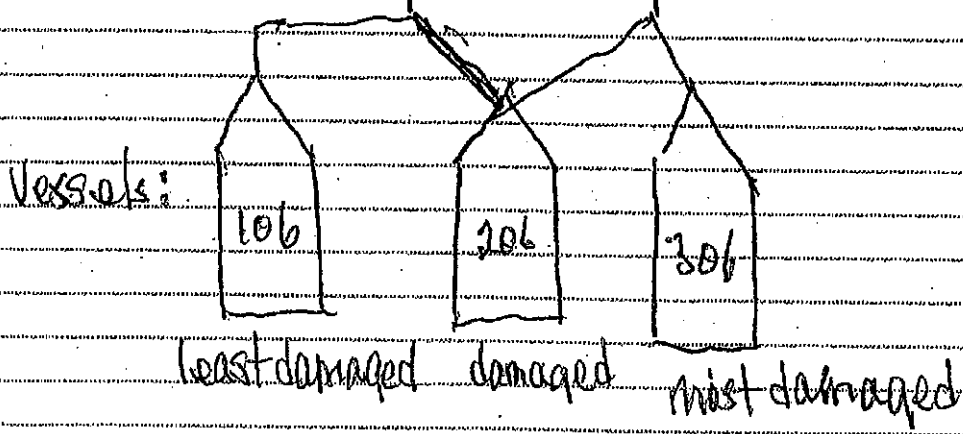
Analyte codes are chosen by the laboratory. The I. H. should review them for applicability, if there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 82646

328  
245  
259

Pre-Sampling Calibration Records					
P R E	Pump Mfg. & SN	Flow Rate Calculations			
	Voltage Checked? <input type="checkbox"/> Yes <input type="checkbox"/> No	Sampling Number <i>V3065</i>			
	Location/T & Alt				
Flow Rate	Method <input type="checkbox"/> Bubble <input type="checkbox"/> PR	Initials	Date/Time		
Post-Sampling Calibration Records					
P O S T	Location/T & Alt.	Flow Rate Calculations			
	Flow Rate	Initials	Date/Time		
Sampling Weight Calculation					
Filter No					
Final Weight (mg)					
Initial Weight (mg)					
Weight Gained (mg)					
Blank Adjustment					
Net Sample Weight (mg)					

Calculations and Notes





Sampling Header Information		
Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 83065
Activity Type: Enforcement	Activity Final Status:	Sampling Date: 10/19/2012
Employee Name:		

Health Sampling Details	
Sample Detail for Sample ID: 86334	
Sampling Detail Info	
Sample Submission ID: 86334	Sample Submission Number: 106
Sample Method:	Hazard Class: Chemical
Sample Method #:	Substance: Carbon Black
Comments:	Codes:
Sample Description:	Lab Analysis Requested?: Y
Sample Location: 390 Central Ave, EAST RUTHERFORD, NJ 07073	

Equipment Info	
Serial Number:	Equipment type:
Bar Code:	Manufacturer:
Field Name:	Make:
Pre Calibrate Session ID:	Model:
Post Calibrate Session ID:	

Primary details	
Filter/Tube Number:	Sample Type:
Total Sample Time (Mins):	Volume:
Total Sample Time Override:	Volume Units:
Total Sample Time Override reason:	Rush Indicator:
Flow Rate:	Rush Reason:
Flow Rate Unit:	Screening Sample:
Lab Exposure Type:	Practical Size Fraction:
Lab Sample Number:	
Sample Type and Media:	

Readings									
<table border="1"> <thead> <tr> <th colspan="2">Sample Reading</th> </tr> </thead> <tbody> <tr> <td>Time In</td> <td>Time Out</td> </tr> </tbody> </table>	Sample Reading		Time In	Time Out	<table border="1"> <thead> <tr> <th colspan="2">Pump Check</th> </tr> </thead> <tbody> <tr> <td>Time</td> <td>Read/Action/Loca...</td> </tr> </tbody> </table>	Pump Check		Time	Read/Action/Loca...
Sample Reading									
Time In	Time Out								
Pump Check									
Time	Read/Action/Loca...								

Direct Reading Information

23 296 364

Direct Reading Type:					Total Sample Time				
Total Sample Time (Mins):					Override:				
					Total Sample Time				
					Override reason:				
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
<b>Sample Result</b>									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							

2973# 365



Direct Reading Type:		Total Sample Time							
Total Sample Time (Mins):		Total Sample Time Override:							
		Total Sample Time Override reason:							
Exposure Type Details									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
Lab Sample Result Information									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
Sample Result									
Substance Code	Lab Result Value	Units	Weight	Weight U...					
Sample Processing Information									
Sampling Processing Status:									
Sampling Substance Reading									
Substance Code	Reporting ...	Sampling Analytical Error							

**Air Sampling Worksheet**

**U.S. Department of Labor  
Occupational Safety & Health Administration**



Thu Jul 29, 2004 5:00pm

MOD	Date	Reporting ID 214850	Inspection Number 740 148	Sampling Number 85 965
Establishment Name Sun Chemical Inc.		Person Performing Sampling (Signature) (b) (7)(C)		Shipping Date 10/27/14
Employee (Name, Address, Telephone Number) (b) (7)(C)		Print Last Name (b) (7)(C)		CSHO ID (b) (7)(C)
Job Title (b) (7)(C)		Occupation Code indian		Exposure Information a. Number b. Duration
PPE (Type and Effectiveness) safety glasses & gloves		Frequency daily		Weather Conditions Photo(s)
Job Description, Operation, Work Location(s), Ventilation and Controls Pouring talc into the dump station to which two dust collection hoses approx 3 inch diameter were attached				Pump Checks and Adjustments

Pump Number:		Sampling Data					
Lab Sample Number							
Sample Submission Number	(b) (7)(C) Dcoll		hose				
Sample Type	Bulk						
Sample Media						not positive	
Filter/Tube No.							
Time On/Off							
Total Time (in minutes)							
Flow Rate <input checked="" type="checkbox"/> l/min <input type="checkbox"/> cc/min							
Volume (in liters)							
Net Sample Weight (in mg)							
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations						
	talco	talco in to					

Interference and Other Comments to Lab Residue from a dust collection hose attached to the dump station that was caught on fire	Supporting Samples	Chain of Custody	INITIALS	Date
	a. Blanks	Seals Intact	Y	N
	b. Bulks	Received in Lab		
	(b) (7)(C) - Dcoll	Received by Analyst		
		Analysis Complete		
		Calculation Checked		
		Supervisor OK'd		
		Case File Page		of

OSHA-91A (Rev. 6/97)  
Sent 11/5  
366  
367

299



Sampling Header Information										
Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 85965								
Activity Type: Enforcement	Activity Final Status:	Sampling Date: 10/17/2012								
Employee Name:										
Health Sampling Details										
Sample Detail for Sample ID: 90274										
Sampling Detail Info										
Sample Submission ID: 90274	Sample Submission Number:	COLL								
Sample Method:	Hazard Class: Chemical									
Sample Method #:	Substance: Asphalt Fumes (Petroleum)									
Comments:	Codes:									
Sample Description: This is a naturally occurring solid hydrocarbon, Gilsonite,	Lab Analysis Requested?: Y									
Sample Location: 390 Central Ave , EAST RUTHERFORD, NJ 07073										
Equipment Info										
Serial Number:	Equipment type:									
Bar Code:	Manufacturer:									
Field Name:	Make:									
Pre Calibrate Session ID:	Model:									
Post Calibrate Session ID:										
Primary details										
Filter/Tube Number:	Sample Type:									
Total Sample Time (Mins):	Volume:									
Total Sample Time Override:	Volume Units:									
Total Sample Time Override reason:	Rush Indicator:									
Flow Rate:	Rush Reason:									
Flow Rate Unit:	Screening Sample:									
Lab Exposure Type:	Practical Size Fraction:									
Lab Sample Number:										
Sample Type and Media:										
Readings										
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Sample Reading										
Time In	Time Out									
Pump Check										
Time	Read/Action/Loce...									
Direct Reading Information										

Direct Reading Type:		Total Sample Time							
Total Sample Time (Mins):		Time Override:							
		Total Sample Time Override reason:							
Exposure Type Details									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
Lab Sample Result Information									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
Sample Result									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
Sample Processing Information									
Sampling Processing Status:									
Sampling Substance Reading									
Substance Code	Reporting ...	Sampling Analytical Error							

Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID 214500	2. Inspection Number 740178	3. Sampling Number 85965
4. Establishment Name SUN CHEMICAL, INC.		
5. CSHO ID 5770	6. Sampling Date 27 OCT 2012	7. Shipping Date 27 OCT 2012
9. Job Title Not applicable		10. Occupational Code
11. Number Exposed		12. Frequency of Exposure

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	PF6	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 918 and submit them directly to IMIS

26. Analyst's Comments (Analytical Method)  Sample bulk L29510 was analyzed by GC / MASS SPEC. Sample L29510 was extracted with methanol and carbon disulfide. No organic analytes were detected.	27. Chain of Custody	Init. Date
	a. Seals Intact	Y
	b. Rec'd in Lab	07 NOV 2012
	c. Rec'd by Anal.	27 NOV 2012
	d. Anal. Completed	28 NOV 2012
	e. Calc. Checked	28 NOV 2012
	f. Supr. OK'd	28 NOV 2012

28 Submission number DCOLL

29 Lab Sample No. L29510  
 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

M125 Qualitative Mass-Spec Analysis

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
 M125

--

- |                                     |  |
|-------------------------------------|--|
| L MILLIGRAMS PER LITER (URINE)      | D MICROGRAMS PER DECILITER (BLOOD)         |
| C PICO CURIES PER LITER (RADON GAS) | P PARTS PER MILLION                        |
| F FIBERS PER CUBIC CENTIMETER       | X MICROGRAMS                               |
| M MILLIGRAMS PER CUBIC METER        | % PERCENT                                  |
| Y MILLIGRAMS                        | E FIBERS PER MM2                           |
| N NONE                              | G MILLION PARTICLES PER CUBIC FOOT (MPPCF) |

Sampling Number: 85965

320 371  
 303

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

Page 2 of 2

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability, if there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 85965

~~321~~ 372  
304



**All Sampling Worksheet**

U.S. Department of Labor  
Occupational Safety and Health Administration



Thu Jul 29, 2004 5:00pm

MOD	Date	Reporting ID	Inspection Number	Sampling Number	Shipping Date
			740 148	85 0105	10/27/10
Establishment Name			Sampling Date	Shipping Date	
Sun Chemical, Inc.			8/23/11	10/27/10	
Person Performing Sampling (Signature)		Print Last Name	CSHO ID		
(b)(7)(C)		(b)(7)(C)	(b)(7)(C)		
Employee (Name, Address, Telephone Number)			Exposure Information	a. Number	b. Duration
(b)(7)(C)				1	
Job Title			Frequency	Weather Conditions	
(b)(7)(C)			Daily	indoor	
Occupation Code			Photo(s)	Pump Checks and Adjustments	
(b)(7)(C)			Y		
Job Description, Operation, Work Location(s), Ventilation and Controls					
Pouring talc into the dump station to which two dust collection hoses approx 3 inch diameter were attached					
Pump Number:			Cont'd		

Pump Number:		Sampling Data			
Lab Sample Number	1-29510				
Sample Submission Number	(b)(7)(C) - Dcoll	hose			
Sample Type	Bulk				
Sample Media					Negative for organic matter
Filter/Tube No.					
Time On/Off					
Total Time (in minutes)					
Flow Rate	<input type="checkbox"/> L/min <input type="checkbox"/> cc/min				
Volume (in liters)					
Net Sample Weight (in mg)					
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations				
	talco (mies) talco in the				

Interference and IHC Comments to Lab Residue from a dust collection hose attached to the dump station that was caught on fire	Supporting Samples	Chain of Custody	Date
	a. Blanks	Seals Intact	(b)(7)(C)
	b. Bulks	Received in Lab	11-7-12
	(b)(7)(C) - Dcoll	Received by Analyst	11/27/11
		Analysis Complete	
	Calculation Checked		
	Supervisor OK'd.		
	Case File Page		of

11-7-12

309 360  
292



Sampling Report

1. Reporting ID: 214500  
 2. Inspection Number: 740178  
 3. Sampling Number: 85965  
 4. Establishment Name: SUN CHEMICAL, INC.  
 5. CSHO ID: [Redacted]  
 6. Sampling Date: 27 OCT 2012  
 7. Shipping Date: 27 OCT 2012  
 8. Date Result Received: [Redacted]  
 9. Job Title: Not applicable  
 10. Occupational Code: [Redacted]  
 11. Number Exposed: [Redacted]  
 12. Frequency of Exposure: [Redacted]

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	FPE	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

25. Analyst's Comments (Analytical Method)  GC/MS ANALYSIS  Sample bulk L29510 was analyzed by GC / MASS SPEC. Sample L29510 was extracted with methanol and carbon disulfide. No organic analytes were detected.	27. Chain of Custody	Init.	Date
	a. Seals Intact		Y
	b. Rec'd In Lab	[Redacted]	07 NOV 2012
	c. Rec'd by Anal.	[Redacted]	27 NOV 2012
	d. Anal. Completed	[Redacted]	28 NOV 2012
	e. Calc. Checked	[Redacted]	28 NOV 2012
	f. Supr. OK'd	[Redacted]	28 NOV 2012

28 Submission number: [Redacted] DCOLL

29 Lab Sample No. L29510  
 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

M125 Qualitative Mass-Spec Analysis

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
 M125

[Redacted]

- L MILLIGRAMS PER LITER (URINE)
- C PICO CURIES PER LITER (RADON GAS)
- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- D MICROGRAMS PER DECILITER (BLOOD)
- P PARTS PER MILLION
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 85965

310 361  
 293

Sampling Report Department of Labor Occupational Safety and Health Administration

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 85965

311  
294

362

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration.

Page 1 of 2

1. Reporting ID 214500 2. Inspection Number 704178 3. Sampling Number 85965  
 4. Establishment Name SUN CHEMICAL, INC.  
 5. CSHO ID (b) (7)(C) 6. Sampling Date 27 OCT 2012 7. Shipping Date 27 OCT 2012 8. Date Result Received  
 9. Job Title Not applicable 10. Occupational Code 11. Number Exposed  
 12. Frequency of Exposure

Exposure Summary (SUPPLEMENT TO THE ORIGINAL AIR SAMPLING REPORT)

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information
									No PPE Trng Med OTH Cit Exp

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

26. Analyst's Comments (Analytical Method) GC/MS ANALYSIS

Sample bulk L29510 was analyzed by GC / MASS SPEC.  
 Sample L29510 was extracted with methanol and carbon disulfide. No organic analytes were detected.

27. Chain of Custody  
 a. Seals Intact

Init. Date  
 Y

b. Rec'd In Lab	(b) (7)(C)	07 NOV 2012
c. Rec'd by Anal.	(b) (7)(C)	27 NOV 2012
d. Anal. Completed	(b) (7)(C)	28 NOV 2012
e. Calc. Checked	(b) (7)(C)	28 NOV 2012
f. Supr. OK'd	(b) (7)(C)	28 NOV 2012

28. Submission number (b) (7)(C) DCOLL

29. Lab Sample No. L29510 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

M125 Qualitative Mass-Spec Analysis

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value

M125

L	MILLIGRAMS PER LITER (URINE)	D	MICROGRAMS PER DECILITER (BLOOD)
C	PICO CURIES PER LITER (RADON GAS)	P	PARTS PER MILLION
F	FIBERS PER CUBIC CENTIMETER	X	MICROGRAMS
M	MILLIGRAMS PER CUBIC METER	%	PERCENT
U	MILLIGRAMS	E	FIBERS PER MM2
N	NONE	G	MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 85965

370  
~~389~~ 440

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration.

Page 2 of 2

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 85965

371  
390  
441  
-241  
TAD

**Air Sampling Worksheet**

**U.S. Department of Labor  
Occupational Safety and Health Administration**



The Jul 29, 2004 9:00pm

MOD	Date	Reporting ID	Inspection Number	740 178	Sampling Number	86 825	
Establishment Name				Sun Chemical Inc		Shipping Date	11/2/12
Person Performing Sampling (Signature)			(b) (7)(C)	Print Last Name	(b) (7)(C)	CSHO ID	(b) (7)(C)
Employee (Name, Address, Telephone Number)				(b) (7)(C)		Exposure Information	a. Number b. (b) (7)(C)
(b) (7)(C)				Frequency		Daily	
Job Title				Occupation Code		Weather Conditions Photo(s)	
(b) (7)(C)						indoor	
PPE (Type and Effectiveness)				Safety glasses & gloves		Pump Checks and Adjustments	
Job Description, Operation, Work Location(s), Ventilation and Controls							
Galsomite & petroleum distillate blending charcoal black Kaskin Barta to manufacture printing ink. During the addition of Galsomite, there was fire in the dust collection duct.							
Pump Number:				Sampling Data			
Lab Sample Number	129732			collection duct			
Sample Submission Number	(b) (7)(C)						
Sample Type	Bulk			Confirmed by lab; This is a class II combustible material			
Sample Media							
Filter/Tube No.	(b) (7)(C)						
Time On/Off	/						
Total Time (in minutes)	/						
Flow Rate	/						
Volume (in liters)	/						
Net Sample Weight (in mg)	/						
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations						
Galsomite							
Interference and IH Comments to Lab				Supporting Samples		Chain of Custody	
Can this material accumulate minimum static charge to ignite?				a. Blanks		Seals Intact (b) (7)(C) Date	
				b. Blanks (b) (7)(C)		Received in Lab 11-13-12	
						Received by Analyst (b) (7)(C)	
						Analysis Complete	
						Calculation Checked	
						Supervisor OK'd	

Notes - Talked to (b) (7)(C) for the analytic (E 100) for Analysis

AP 11/13/12

OSHA 01-1 (Rev. 6/0) (b) (7)(C)

327  
260 276

Pre-Sampling Calibration Records						
P R E S A M P L I N G	Pump Mfg. & SN	Flow Rate Calculations				
	Voltage Checked? <input type="checkbox"/> Yes <input type="checkbox"/> No					
	Location/T & Alt.	Flow Rate	Method <input type="checkbox"/> Bubble <input type="checkbox"/> PR	Initials	Date/Time	
Post-Sampling Calibration Records						
P O S T S A M P L I N G	Location/T & Alt.	Flow Rate Calculations				
	Flow Rate	Initials		Date/Time		
Sampling Weight Calculation						
Filter No						
Final Weight (mg)						
Initial Weight (mg)						
Weight Gained (mg)						
Blank Adjustment						
Net Sample Weight (mg)						

Calculations and Notes

Can Gilsonite create (generate) enough static electricity  
to create an ignition?

261 358  
277

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration.

Page 1 of 2

1. Reporting ID 214500 2. Inspection Number 704178 3. Sampling Number 86825  
 4. Establishment Name SUN CHEMICAL, INC.  
 5. CSHO ID (b)(7)(C) 6. Sampling Date 17 OCT 2012 7. Shipping Date 02 NOV 2012 8. Date Result Received  
 9. Job Title Laborers, except construction (8769) 10. Occupational Code 11. Number Exposed  
 12. Frequency of Exposure

Exposure Summary (SUPPLEMENT TO THE ORIGINAL AIR SAMPLING REPORT)

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information
									No FTA Over Eng PPE Trng Med OTH Cit Exp

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 918 and submit them directly to IMIS

26. Analyst's Comments (Analytical Method) NMAB 353-3

(b)(7)(C)

27. Chain of Custody	Init.	Date
a. Seals Intact		Y
b. Rec'd In Lab	(b)(7)(C)	13 NOV 2012
c. Rec'd by Anal.		07 DEC 2012
d. Anal. Completed		12 DEC 2012
e. Calc. Checked		14 DEC 2012
f. Supr. OK'd		14 DEC 2012

L29732 E101 This material is a class II Dust. This also means the material is explosive. The Explosion Severity was 1.20.

Hartmann Kst = 19.04  
 Pressure Ratio = 6.55

Values for Kst and pressure ratio were generated in a 1.2 liter Hartmann Closed Cylindrical Vessel. Kst values are affected by the size and shape of the vessel used. Kst values obtained in a Hartmann Chamber are typically lower than those obtained using other types of explosive test chambers. The results obtained from this instrument can NOT be used in designing or engineering protective safety equipment.

Results of the sieve size analysis were:  
 < 20 mesh = 92 %  
 < 40 mesh = 74 %  
 < 200 mesh = 7.4 %  
 % Moisture = 0.1 %

There is not a method to determine the amount of static charge that would produce an explosion.

28 Submission number GIL

29 Lab Sample No. L29732 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample Included in calculations of

E101 Explosion Severity	1.2000	N BEVR
K104 Moisture Content	0.1000	% MOIS

Sampling Number: 86825

262 329 278



Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration.

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Sell Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value

M104

E101

- |   |                                   |   |  |
|---|-----------------------------------|---|--|
| L | MILLIGRAMS PER LITER (URINE)      | D | MICROGRAMS PER DECILITER (BLOOD)         |
| C | PICO CURIES PER LITER (RADON GAS) | P | PARTS PER MILLION                        |
| F | FIBERS PER CUBIC CENTIMETER       | X | MICROGRAMS                               |
| M | MILLIGRAMS PER CUBIC METER        | % | PERCENT                                  |
| Y | MILLIGRAMS                        | E | FIBERS PER MM2                           |
| N | NONE                              | G | MILLION PARTICLES PER CUBIC FOOT (MPPCF) |
- BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. R. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

330  
263 279

**Air Sampling Worksheet**

**U.S. Department of Labor  
Occupational Safety & Health Administration**



The Jul 29, 2001 5:00pm

MOD	Date	Reporting ID 916570	Inspection Number 240 AX	Sampling Number 829 25
Establishment Name Sun Chemical Inc.		Person Performing Sampling (Signature) (b)(7)(C)		Shipping Date 6/26/12
Employee (Name, Address, Telephone Number) (b)(7)(C)		Print Last Name (b)(7)(C)		CSHO ID (b)(7)(C)
PPE (Type) (b)(7)(C)		Exposure Information Frequency: Daily Weather Conditions: Indoors		a. Number (b)(7)(C)
Job Description, Operation, Work Location(s), Ventilation and Controls Transferring carbon black & petroleum distillate into vessels via vacuum and blending these ingredients w/ other materials in closed system.				

Lab Sample Number		Sampling Data		
Sample Submission Number	(b)(7)(C)			
Sample Type	Bulk	Bulk	Explosive	
Sample Media	/	/	/	
Filter/Tube No.	/	/	/	
Time On/Off	/	/	/	
Total Time (in minutes)	/	/	/	
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min	/	/	/	
Volume (in liters)	/	/	/	
Net Sample Weight (in mg)	/	/	/	
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations			
Petroleum distillates				

Interference and IH Comments to Lab  
Petroleum distillates could be from either tank - 1 or PD-2 on the top of fire

Supporting Samples	Chain of Custody	Initials	Date
a. Blanks	Seals Intact	Y	N
	Received in Lab		
	Received by Analyst		
b. Bulks	Analysis Complete		
(b)(7)(C)	Calculation Checked		
(b)(7)(C)	Supervisor O'd.		
	Case File Page		01

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).


Sampling Number: 82646

332  
265 281



Sampling Header Information										
Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 82925								
Activity Type: Enforcement	Activity Final Status:	Sampling Date: 10/26/2012								
Employee Name:										
Health Sampling Details										
Sample Detail for Sample ID: 86174										
Sampling Detail Info										
Sample Submission ID: 86174	Sample Submission Number:	(S) (7)(C)								
Sample Method:	Hazard Class:	Chemical								
Sample Method #:	Substance Codes:	Petroleum Distillates (Naphtha) (Rubber Solvent)								
Comments:	Lab Analysis Requested?:	Y								
Sample Description:	Sample Location:	390 Central Ave , EAST RUTHERFORD, NJ 07073								
Equipment Info										
Serial Number:	Equipment type:									
Bar Code:	Manufacturer:									
Field Name:	Make:									
Pre Calibrate Session ID:	Model:									
Post Calibrate Session ID:										
Primary details										
Filter/Tube Number:	Sample Type:									
Total Sample Time (Mins):	Volume:									
Total Sample Time Override:	Volume Units:									
Total Sample Time Override reason:	Rush Indicator:									
Flow Rate:	Rush Reason:									
Flow Rate Unit:	Screening Sample :									
Lab Exposure Type:	Practical Size Fraction:									
Lab Sample Number:										
Sample Type and Media:										
Readings										
<table border="1"> <thead> <tr> <th colspan="2">Sample Reading</th> </tr> </thead> <tbody> <tr> <td>Time In</td> <td>Time Out</td> </tr> </tbody> </table>		Sample Reading		Time In	Time Out	<table border="1"> <thead> <tr> <th colspan="2">Pump Check</th> </tr> </thead> <tbody> <tr> <td>Time</td> <td>Read/Action/Loca...</td> </tr> </tbody> </table>	Pump Check		Time	Read/Action/Loca...
Sample Reading										
Time In	Time Out									
Pump Check										
Time	Read/Action/Loca...									
Direct Reading Information										

267 394 783

Direct Reading Type:		Total Sample Time	
Total Sample Time (Mins):		Override:	
		Total Sample Time	
		Override reason:	
<b>Exposure Type Details</b>			
Time On	Time Off	Exposure Type	Time (mins)
			Location
		Reading Value	Reading Unit
		OEL Type	OEL Value
			Severity
<b>Lab Sample Result Information</b>			
Analyst Analytical Method:		Sample Result Resource:	
Lab Analysis Requested:		Analyst Comments:	
<b>Sample Result</b>			
Substance Code	Lab Result... Value	Units	Weight
			Weight U...
<b>Sample Processing Information</b>			
Sampling Processing Status:			
<b>Sampling Substance Reading</b>			
Substance Code	Reporting ...	Sampling Analytical Error	
<b>Sample Detail for Sample ID: 86194</b>			
<b>Sampling Detail Info</b>			
Sample Submission ID: 86194		Sample Submission Number: 	
Sample Method:		Hazard Class: Chemical	
Sample Method #:		Substance: Petroleum Distillates (Naphtha) (Rubber Solvent)	
Comments:		Lab Analysis Requested?: Y	
Sample Description: One of the ingredients for printing ink			
Sample Location: 390 Central Ave , EAST RUTHERFORD, NJ 07073			
<b>Equipment Info</b>			
Serial Number:		Equipment type:	
Bar Code:		Manufacturer:	
Field Name:		Make:	
Pre Calibrate Session ID:		Model:	
Post Calibrate Session ID:			
<b>Primary details</b>			
Filter/Tube Number:		Sample Type:	
Total Sample Time (Mins):		Volume:	
Total Sample Time Override:		Volume Units:	
Total Sample Time Override reason:		Rush Indicator:	

268 335 254

Flow Rate: Flow Rate Unit: Lab Exposure Type: Lab Sample Number: Sample Type and Media:	Rush Reason:  Screening Sample : Practical Size Fraction:																				
<b>Readings</b>																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left;">Sample Reading</th> </tr> <tr> <td style="width: 50%;">Time In</td> <td style="width: 50%;">Time Out</td> </tr> </table>	Sample Reading		Time In	Time Out	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left;">Pump Check</th> </tr> <tr> <td style="width: 50%;">Time</td> <td style="width: 50%;">Read/Action/Loca...</td> </tr> </table>	Pump Check		Time	Read/Action/Loca...												
Sample Reading																					
Time In	Time Out																				
Pump Check																					
Time	Read/Action/Loca...																				
<b>Direct Reading Information</b>																					
Direct Reading Type: Total Sample Time (Mins):	Total Sample Time Override: Total Sample Time Override reason:																				
<b>Exposure Type Details</b>																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Time On</th> <th>Time Off</th> <th>Exposure Type</th> <th>Time (mins)</th> <th>Location</th> <th>Reading Value</th> <th>Reading Unit</th> <th>OEL Type</th> <th>OEL Value</th> <th>Severity</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity										
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity												
<b>Lab Sample Result Information</b>																					
Analyst Analytical Method: Lab Analysis Requested:	Sample Result Resource: Analyst Comments:																				
<b>Sample Result</b>																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Substance Code</th> <th>Lab Result... Value</th> <th>Units</th> <th>Weight</th> <th>Weight U...</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		Substance Code	Lab Result... Value	Units	Weight	Weight U...															
Substance Code	Lab Result... Value	Units	Weight	Weight U...																	
<b>Sample Processing Information</b>																					
Sampling Processing Status:																					
<b>Sampling Substance Reading</b>																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Substance Code</th> <th>Reporting ...</th> <th>Sampling Analytical Error</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		Substance Code	Reporting ...	Sampling Analytical Error																	
Substance Code	Reporting ...	Sampling Analytical Error																			



Sampling Report, U.S. Department of Labor, Occupational Safety and Health Administration

1. Reporting ID: 214500  
 2. Inspection Number: 740178  
 3. Sampling Number: 82925  
 4. Establishment Name: SUN CHEMICAL, INC.  
 5. CSHO ID: (b)(7)(C)  
 6. Sampling Date: 26 OCT 2012  
 7. Shipping Date: 26 OCT 2012  
 8. Date Result Received:  
 9. Job Title: Not applicable  
 10. Occupational Code:  
 11. Number Exposed:  
 12. Frequency of Exposure:

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information						
									No Cit	FTA	Over Exp	Eng	PPE	Trng	Med

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

26. Analyst's Comments: OSHA 48 (Analytical Method)  
 The reporting limit for L29451 is 0.342 %, for L29452 is 0.323 % by weight.

27. Chain of Custody	Init.	Date
a. Seals Intact		Y
b. Rec'd In Lab	(b)(7)(C)	31 OCT 2012
c. Rec'd by Anal.		08 NOV 2012
d. Anal. Completed		09 NOV 2012
e. Calc. Checked		09 NOV 2012
f. Supr. OK'd		14 NOV 2012

28 Submission number: (b)(7)(C)

29 Lab Sample No. L29451 L29452  
 (Minutes/Type) B B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

2037 Petroleum Distillates (Naphtha) (Rubber Solvent)	%	ND	%	ND
---	---	----	---	----

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
 2037

[Redacted]

- L MILLIGRAMS PER LITER (URINE)
- C PICO-CURIES PER LITER (RADON GAS)
- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- D MICROGRAMS PER DECILITER (BLOOD)
- P PARTS PER MILLION
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 82925

270 337 256

Air Sampling Reference Department of Labor Occupational Safety and Health Administration

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 82925

271 ~~328~~  
287



U.S. Department of Labor  
Occupational Safety and Health Administration

Thu Jul 29, 2011 5:00am

MOD: [ ] Date: [ ] Reporting ID: 211500 Inspection Number: 304 (b)(7)(C) Sampling Number: 88065

Establishment Name: Sun Chemical Inc Sampling Date: 10/9/12 Shipping Date: 10/26/12

Person Performing Sampling (Signature): (b)(7)(C) Print Last Name: (b)(7)(C) CSHO ID: (b)(7)(C)

Employee (Name, Address, Telephone Number): (b)(7)(C)

Exposure Information: a. Number: [ ] b. Duration: [ ]

Frequency: Daily

Weather Conditions: indoors

Occupation Code: (b)(7)(C)

Pump Checks and Adjustments: [ ]

Job Description, Operation, Work Location(s), Ventilation and Controls: Blending carbon black Kaelin, Benton, Petroleum distillate, Epikont 4 oil (linseed) in vessels in a room the system is enclosed.

Lab Sample Number	Sampling Data
L29453	
Sample Submission Number: (b)(7)(C) 106	
Sample Type: Bulk	High molecular
Sample Media: [ ]	
Filter/Tube No.: [ ]	
Time On/Off: [ ]	
Total Time (in minutes): [ ]	
Flow Rate (liters/min) □ cc/min: [ ]	
Volume (in liters): [ ]	
Net Sample Weight (in mg): [ ]	
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations
Carbon black	
Benton	

Observations and Comments to Lab: The above materials were in the vessel, 106, that was the least damaged when the two other vessels were caught on fire.

Supporting Samples: n. Blanks: [ ] b. Bales: (b)(7)(C) 106

Chain of Custody: [ ] Date: 11/2/12

Received in Lab: [ ] 11/14/12

Received by Analyst: [ ]

Analysis Complete: [ ]

Calculation Checked: [ ]

Supervisor OK'd: [ ]

Samples were opened and split by (b)(7)(C) 11/9/12

OSHA Form 3060-107 (Rev. 10/13/10)

U.S. Department of Labor  
Occupational Safety and Health Administration



The Jul 29, 2004, 5:00pm

MOD	Date	Reporting ID	Inspection Number	Sampling Number	Shipping Date
		214500	704 (b)(7)(C) #148	82065	10/26/12
Establishment Name				Sampling Date	Shipping Date
Sun Chemical Inc				10/11/12	10/26/12
Person Performing Sampling (Signature)			Print Last Name	CSHO ID	
(b)(7)(C)			(b)(7)(C)	(b)(7)(C)	
Employee (Name, Address, Telephone Number)				Exposure Information	a. Number b. Duration
(b)(7)(C)				Frequency	DAILY
				Weather Conditions	Photo(s)
Job Title			Occupation Code	Pump Checks and Adjustments	
Tie-mul operator				indoor	
PPE (Type and Effectiveness)			Pump Checks and Adjustments		
Safety glasses & gloves					
Job Description, Operation, Work Location(s), Ventilation and Controls					
Benton, Petroleum distillate, Blending carbon black Kaelin, & vessels in a room the system is enclosed. Benton, Petroleum distillate, Bentonite & oil (linseed). in					

Pump Number		Sampling Data	
Lab Sample Number	L29453		
Sample Submission Number	(b)(7)(C) 106		
Sample Type	Bulk		High molecular
Sample Media			
Filter/Tube No.			
Time On/Off			
Total Time (in minutes)			
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min			
Volume (in liters)			
Net Sample Weight (in mg)			
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations		
Carbon black			
Bentonite			

Information and Comments to Lab The above materials were in the vessel, 106, that was the least damaged when the two other vessels were caught on fire.	Supporting Samples	Chain of Custody	Date
	a. Blanks	Sent In	11/2/12
	b. Bulk	Received in Lab	11-2-12
		Received by Analyst	11/14/12
		Analysis Complete	
	Calculation Checked		
	Supervisor OK'd		

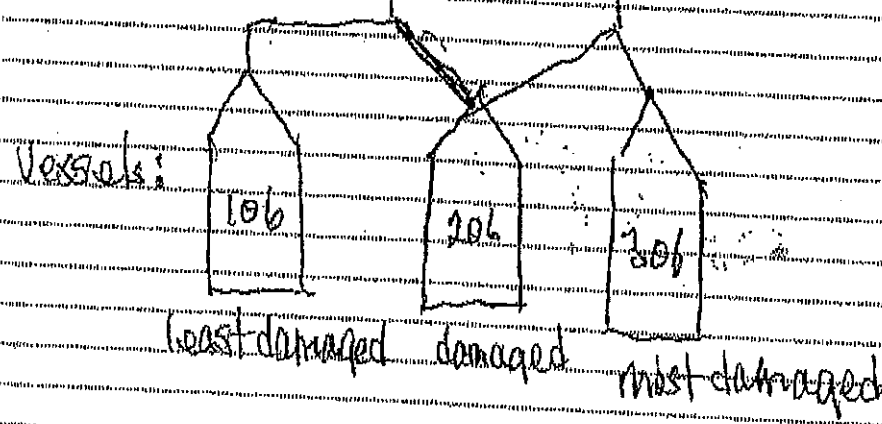
Samples were opened and split by WR 11/9/12

OSHA-311A (REV 8/97)



Pump Mfg. & SN Voltage Checked? <input type="checkbox"/> Yes <input type="checkbox"/> No Location/T & Alt		Flow Rate Calculations Sampling Number 83065			
		Flow Rate	Method <input type="checkbox"/> Bubble <input type="checkbox"/> PR	Initials	Date/Time
Sampling Calibration Reason Location/T & Alt		Flow Rate Calculations			
		Flow Rate	Initials	Date/Time	
Sample Weight Calculations					
Filter No					
Final Weight (mg)					
Initial Weight (mg)					
Weight Gained (mg)					
Blank Adjustment					
Net Sample Weight (mg)					

Calculations and Notes



Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID 214500	2. Inspection Number 740178	3. Sampling Number 83065
4. Establishment Name SUN CHEMICAL, INC.		
5. CSHO ID 0700	6. Sampling Date 19 OCT 2012	7. Shipping Date 26 OCT 2012
9. Job Title Not applicable		11. Number Exposed
12. Frequency of Exposure		

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PRL	21. Adj	22. Severity	23. Citation Information						
									No Cit	FTA	Over Exp	Eng	PPE	Trng	Med

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

26. Analyst's Comments (Analytical Method) GC/MS ANALYSIS

Sample bulks were extracted with carbon disulfide and filtered to remove suspended particles. Samples were analyzed by GC MASS SPEC.

L29453: was none detected.

L29454: Ultra trace amounts of analytes detected were C20- C22 aliphatic hydrocarbons, N-(1,2,3,3,3-pentafluoropropenyl) Aziridina 3,3-diphenyl-5-methyl(3H)pyrazole, Mixture of cholestane, coprestane and 24-methyl cholestane and some compounds not properly identified by MASS SPEC library.

L29455: Analytes detected were trace amounts of C18- C25 aliphatic hydro carbons and some compounds not properly identified by MASS SPEC library.

L29456: Analytes detected were trace amounts of C18-C20 aliphatic hydrocarbons, Cholestane and some compounds not properly identified by MASS SPEC library

27. Chain of Custody	Init.	Date
a. Seals Intact		Y
b. Rec'd In Lab		02 NOV 2012
c. Rec'd by Anal.		14 NOV 2012
d. Anal. Completed		16 NOV 2012
e. Calc. Checked		16 NOV 2012
f. Supr. OK'd		16 NOV 2012

28 Submission number

29 Lab Sample No. L29453  
(M/nutes/Type) B

30. Analyte	31. Analysis Results/	32. Sample included in calculations of
-------------	-----------------------	--

M125 Qualitative Mass-Spec Analysis

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
M125

L MILLIGRAMS PER LITER (URINE) D MICROGRAMS PER DECILITER (BLOOD)  
 C PICO CURIES PER LITER (RADON GAS) P PARTS PER MILLION

Sampling Number: 83065

281 349 298



Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- BM/S Bar Meters per Second
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability, if there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 83065

282 350 299

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration.

Page 1 of 2

1. Reporting ID 214500 2. Inspection Number 704178 3. Sampling Number 83065  
 4. Establishment Name SUN CHEMICAL, INC.  
 5. CSHO ID (b) (7)(C) 6. Sampling Date 19 OCT 2012 7. Shipping Date 26 OCT 2012 8. Date Result Received  
 9. Job Title Not applicable 10. Occupational Code 11. Number Exposed  
 12. Frequency of Exposure

Exposure Summary

(SUPPLEMENT TO THE ORIGINAL AIR SAMPLING REPORT)

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information
No	FTA	Over	Eng	PPE	Trng	Med	OTH		
Cit	Exp								

TWA calculated on actual time sampled

The I. H. is free to make changes on the Form 91B and submit them directly to IHIS

26. Analyst's Comments OSHA ID-196  
 (Analytical Method)

If you have any questions please contact Daniel Johansen, Scott Jones, or Jon Rima at the Salt Lake Technical Center. (801) 233-4900.

Reporting Limit = 0.1 mg

SAE = 0.184

27. Chain of Custody	Init.	Date
a. Seals Intact		Y
b. Rec'd In Lab		02 NOV 2012
c. Rec'd by Anal.		30 NOV 2012
d. Anal. Completed		05 DEC 2012
e. Calc. Checked		06 DEC 2012
f. Supr. OK'd		06 DEC 2012

28 Submission number 106

29 Lab Sample No. L29453  
 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

0527 Carbon Black  
 % ND

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
 0527

L MILLIGRAMS PER LITER (URINE)	D MICROGRAMS PER DECILITER (BLOOD)
C PICO CURIES PER LITER (RADON GAS)	P PARTS PER MILLION
F FIBERS PER CUBIC CENTIMETER	X MICROGRAMS
M MILLIGRAMS PER CUBIC METER	% PERCENT
Y MILLIGRAMS	E FIBERS PER MM2
N NONE	G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 83065

351  
 283 300

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration.

Page 2 of 2

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 83066

284 352  
301

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID 214500	2. Inspection Number 704178	3. Sampling Number 96271
4. Establishment Name Sun Chemical Inc		
5. CSHO ID [Redacted]	6. Sampling Date 15 NOV 2012	7. Shipping Date 29 NOV 2012
9. Job Title Not applicable		8. Date Result Received
10. Occupational Code		11. Number Exposed
12. Frequency of Exposure		

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	PPE	Trng	Med	OTR

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 918 and submit them directly to IMIS

26. Analyst's Comments (Analytical Method)  The sample was extracted using Carbon Disulfide and analyzed by GC-MS. Presence of small amounts of aliphatic hydrocarbons (Chain length C12-C18), traces of naphthalene and 14-beta-pregnane were observed.	27. Chain of Custody	Init.	Date
	a. Seals Intact		Y
	b. Rec'd In Lab	[Redacted]	04 DEC 2012
	c. Rec'd by Anal.		20 DEC 2012
	d. Anal. Completed		20 DEC 2012
	e. Calc. Checked		21 DEC 2012
	f. Supr. OK'd		28 DEC 2012

28 Submission number [Redacted]  
 29 Lab Sample No. L30688  
 (Minutes/Type) B

30. Analyte	31. Analysis Results/	32. Sample included in calculations of
-------------	-----------------------	--

M125 Qualitative Mass-Spec Analysis

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
 M125

--

- L MILLIGRAMS PER LITER (URINE)
- C PICO CURIES PER LITER (RADON GAS)
- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- D MICROGRAMS PER DECILITER (BLOOD)
- P PARTS PER MILLION
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 96271

Sampling Report  
Department of Labor, Occupational Safety and Health Administration

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 96271

~~330~~ 381  
313

Sampling Header Information										
Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 96271								
Activity Type: Enforcement	Activity Final Status:	Sampling Date: 11/15/2012								
Employee Name:										
Health Sampling Details										
Sample Detail for Sample ID: 99478										
Sampling Detail Info										
Sample Submission ID: 99478	Sample Submission Number:	<input type="checkbox"/> <input checked="" type="checkbox"/>								
Sample Method:	Hazard Class:	Chemical								
Sample Method #:	Substance Codes:	Carbon Black								
Comments:	Lab Analysis Requested?:	Y								
Sample Description:										
Sample Location: 390 Central Ave , EAST RUTHERFORD, NJ 07073										
Equipment Info										
Serial Number:	Equipment type:									
Bar Code:	Manufacturer:									
Field Name:	Make:									
Pre Calibrate Session ID:	Model:									
Post Calibrate Session ID:										
Primary details										
Filter/Tube Number: <input checked="" type="checkbox"/>	Sample Type:	Bulk								
Total Sample Time (Mins):	Volume:									
Total Sample Time Override:	Volume Units:									
Total Sample Time Override reason:	Rush Indicator:	Y								
Flow Rate:	Rush Reason:	Fire and explosion								
Flow Rate Unit:	Screening Sample :	N								
Lab Exposure Type:	Practical Size Fraction:									
Lab Sample Number:										
Sample Type and Media:		Bulk								
Readings										
<table border="1"> <thead> <tr> <th colspan="2">Sample Reading</th> </tr> </thead> <tbody> <tr> <td>Time In</td> <td>Time Out</td> </tr> </tbody> </table>		Sample Reading		Time In	Time Out	<table border="1"> <thead> <tr> <th colspan="2">Pump Check</th> </tr> </thead> <tbody> <tr> <td>Time</td> <td>Read/Action/Loc...</td> </tr> </tbody> </table>	Pump Check		Time	Read/Action/Loc...
Sample Reading										
Time In	Time Out									
Pump Check										
Time	Read/Action/Loc...									
Direct Reading Information										

Direct Reading Type:		Total Sample Time							
Total Sample Time (Mins):		Override:							
		Total Sample Time							
		Override							
		reason:							
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
<b>Sample Result</b>									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							



Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

Page 1 of 2

1. Reporting ID 214500	2. Inspection Number 704178	3. Sampling Number 96271
4. Establishment Name SUN CHEMICAL, INC.		
5. OSHA ID (b) (7)(C)	6. Sampling Date 15 NOV 2012	7. Shipping Date 29 NOV 2012
8. Date Result Received		
9. Job Title Not applicable		10. Occupational Code
11. Number Exposed		
12. Frequency of Exposure		

Exposure Summary (SUPPLEMENT TO THE ORIGINAL AIR SAMPLING REPORT)

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation Information							
									No Cit	FTA	Over Exp	Eng	PPR	Trng	Med	DTH

TWA calculated on actual time sampled  
 The I. N. is free to make changes on the Form 918 and submit them directly to IMIS

26. Analyst's Comments (Analytical Method) OSHA ID-196

(b) (7)(C)

27. Chain of Custody	Init.	Date
a. Seals Intact	(b) (7)(C)	Y
b. Rec'd In Lab	(b) (7)(C)	04 DEC 2012
c. Rec'd by Anal.	(b) (7)(C)	16 JAN 2013
d. Anal. Completed	(b) (7)(C)	28 JAN 2013
e. Calc. Checked	(b) (7)(C)	30 JAN 2013
f. Supr. OK'd	(b) (7)(C)	30 JAN 2013

L30688 0527 Reporting Limit = 0.1 Mg

SAE = 0.164

The Carbon Black, gravimetric method is very weight restrictive. The sample weight for bulk samples is only 10 to 20 milligrams. Duplicate testing of the bulk samples show the materials to be non-homogenous. Therefore, the results reported are approximations only, due to the combination of small sample size and non-homogenous material.

28 Submission number (b) (7)(C)

29 Lab Sample No. L30688 (Minutes/Type) n

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

0527 Carbon Black 62.0000  
% e

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
0527

L MILLIGRAMS PER LITER (URINE) D MICROGRAMS PER DECILITER (BLOOD)

Sampling Number: 96271

333 384  
3/6

# Air Sampling Worksheet

U.S. Department of Labor  
Occupational Safety and Health Administration



Thu Jul 29, 2004 5:00pm

MOD	Date	Reporting ID 214500	Inspection Number 104 198	Sampling Number 96408
Establishment Name Sun Chemical Inc			Sampling Date 10/23/12	Shipping Date 10/30/12
Person Performing Sampling (Signature)		Initial Last Name (b) (7)(C)		CSHO ID (b) (7)(C)
Employee (Name, Address, Telephone) Bulk			Exposure Information	a. Number b. Duration
Job Title			Frequency Daily	Weather Conditions Indoor
Occupation Code			Photo(s)	
PPE (Type and Effectiveness)			Pump Checks and Adjustments	

Job Description, Operation, Work Location(s), Ventilation and Controls  
 while the employee adding bitumite into the vessel containing KO1 (Petroleum Distillate) a fire & an explosion occurred.

Pump Number:		Sampling Data			
Lab Sample Number					
Sample Submission Number	01				
Sample Type	Bulk				
Sample Media	/				
Filter/Tube No.	01			Negative	
Time On/Off	/				
Total Time (in minutes)	/				
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min	/				
Volume (in liters)	/				
Net Sample Weight (in mg)	/				
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations				
Petroleum Distillates T					

Interference and IH Comments to Lab Can you come up with a Kst value? - combustibility.	Supporting Samples	Chain of Custody	Initials	Date
	a. Blanks	Seals Intact	Y N	
	b. Bulks KO1	Received in Lab Received by Analyst Analysis Complete Calculation Checked Supervisor OK'd.		

329  
OSHA-91A (Rev. 6/97)  
346 997



Health Sampling Details in Preview

Sampling Header Information		
Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 96408
Activity Type: Enforcement	Activity Status: Ffinal	Sampling Date: 11/23/2012
Employee Name:		

Health Sampling Details

Sample Detail for Sample ID: 99558	
Sampling Detail Info	
Sample Submission ID: 99558	Sample Submission Number: KO1
Sample Method:	Hazard Class: Chemical
Sample Method #:	Substance Codes: Petroleum Distillates (Naphtha) (Rubber Solvent)
Comments:	Lab Analysis Requested?: Y
Sample Description:	
Sample Location: 390 Central Ave , EAST RUTHERFORD, NJ 07073	

Equipment Info	
Serial Number:	Equipment type:
Bar Code:	Manufacturer:
Field Name:	Make:
Pre Calibrate Session ID:	Model:
Post Calibrate Session ID:	

Primary details	
Filter/Tube Number: KO1	Sample Type: Bulk
Total Sample Time (Mins):	Volume:
Total Sample Time Override:	Volume Units:
Total Sample Time Override reason:	Rush Indicator: N
Flow Rate:	Rush Reason:
Flow Rate Unit: None	Screening Sample: N
Lab Exposure Type:	Practical Size Fraction:
Lab Sample Number:	
Sample Type and Media:	

Readings									
<table border="1"> <thead> <tr> <th colspan="2">Sample Reading</th> </tr> </thead> <tbody> <tr> <td>Time In</td> <td>Time Out</td> </tr> </tbody> </table>	Sample Reading		Time In	Time Out	<table border="1"> <thead> <tr> <th colspan="2">Pump Check</th> </tr> </thead> <tbody> <tr> <td>Time</td> <td>Read/Action/Loca...</td> </tr> </tbody> </table>	Pump Check		Time	Read/Action/Loca...
Sample Reading									
Time In	Time Out								
Pump Check									
Time	Read/Action/Loca...								

Direct Reading Information

331  
309  
348

Direct Reading Type:		Total Sample Time Override:							
Total Sample Time (Mins):		Total Sample Time Override reason:							
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:		Sample Result Resource:							
Lab Analysis Requested:		Analyst Comments:							
<b>Sample Result</b>									
Substance Code	Lab Result... Value	Units	Weight	Weight U...					
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							

332

3119

460

U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID: 214500      2. Inspection Number: 704178      3. Sampling Number: 96408

4. Establishment Name: Sun Chemical Inc

5. CSHO ID: (b)(7)(C)      6. Sampling Date: 23 NOV 2012      7. Shipping Date: 30 NOV 2012      8. Date Result Received:

9. Job Title: Not applicable      10. Occupational Code:      11. Number Exposed:

12. Frequency of Exposure:

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	PPE	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

26. Analyst's Comments (Analytical Method): OSHA 48  
 The reporting limit for 2037 is 0.59 % by weight. The sample vials were sealed with tape, not OSHA seal.

27. Chain of Custody	Init.	Date
a. Seals Intact		N
b. Rec'd In Lab	<span style="border: 1px solid black; padding: 2px;">(b)(7)(C)</span>	04 DEC 2012
c. Rec'd by Anal.		02 JAN 2013
d. Anal. Completed		03 JAN 2013
e. Calc. Checked		07 JAN 2013
f. Supr. OK'd		07 JAN 2013

28 Submission number: K01

29 Lab Sample No. (Minutes/Type): L30689 B

30. Analyte      31. Analysis Results/      32. Sample included in calculations of

2037 Petroleum Distillates (Naphtha) (Rubber Solvent)      %      ND

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code      SAE Value  
 2037

- |  |   |
|--|---|
| L    MILLIGRAMS PER LITER (URINE)      | D    MICROGRAMS PER DECILITER (BLOOD)         |
| C    PICO CURIES PER LITER (RADON GAS) | P    PARTS PER MILLION                        |
| F    FIBERS PER CUBIC CENTIMETER       | X    MICROGRAMS                               |
| M    MILLIGRAMS PER CUBIC METER        | %    PERCENT                                  |
| Y    MILLIGRAMS                        | B    FIBERS PER MM2                           |
| N    NONE                              | G    MILLION PARTICLES PER CUBIC FOOT (MPPCF) |

Sampling Number: 96408

333

250-401

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 96408

334  
351 4F2



**Air Sampling Worksheet**

U.S. Department of Labor  
Occupational Safety & Health Administration



Thu Jul 29, 2004 5:00pm

MOD	Date	Reporting ID ALT-500	Inspection Number 104 178	Sampling Number 96 448
Establishment Name Sun Chemical Inc			Sampling Date 11/30/12	Shipping Date 11/30/12
Person Performing Sampling (Signature)		Last Name (b) (7)(C)		CSHO ID (b) (7)(C)
Employee (Name, Address, Telephone)		Exposure Information		
Bulk		a. Number		
		b. Duration		
		Frequency Daily		
		Weather Conditions Indoor		
Job Title		Occupation Code		
PPB (Type and Effectiveness)		Pump Checks and Adjustments		
Job Description, Operation, Work Location(s), Ventilation and Controls while adding Gikonite to the tank containing KO2, Petroleum Distillates. a fire and an explosion occurred.				
Cont'd				

Pump Number:	Sampling Data				
Lab Sample Number					
Sample Submission Number	KO2				
Sample Type	/				
Sample Media	/				
Filter/Tube No.	KO2		No conductivity		
Time On/Off	/				
Total Time (in minutes)	/				
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min	/				
Volume (in liters)	/				
Net Sample Weight (in mg)	/				
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations				
Petroleum Distillates					

Interference and IM Comments to Lab Is it possible to obtain a Kst value?	Supporting Samples	Chain of Custody	Initials	Date
	a. Blanks	Seals Intact	Y N	
		Received in Lab		
		Received by Analyst		
	b. Bulks	Analysis Complete		
		Calculation Checked		
		Supervisor OK'd.		

Case File Page 01

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Sampling Header Information														
Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 96448												
Activity Type: Enforcement	Activity Status: Final	Sampling Date: 11/23/2012												
Employee Name:														
Health Sampling Details														
Sample Detail for Sample ID: 99578														
Sampling Detail Info														
Sample Submission ID: 99578	Sample Submission Number:	K02												
Sample Method:														
Sample Method #:	Hazard Class:	Chemical												
Comments:	Substance Codes:	Petroleum Distillates (Naphtha) (Rubber Solvent)												
Sample Description:	Lab Analysis Requested?:	Y												
Sample Location: 390 Central Ave , EAST RUTHERFORD, NJ 07073														
Equipment Info														
Serial Number:	Equipment type:													
Bar Code:	Manufacturer:													
Field Name:	Make:													
Pre Calibrate Session ID:	Model:													
Post Calibrate Session ID:														
Primary details														
Filter/Tube Number: K02	Sample Type:	Bulk												
Total Sample Time (Mins):	Volume:													
Total Sample Time Override:	Volume Units:													
Total Sample Time Override reason:	Rush Indicator:	Y												
Flow Rate:	Rush Reason:	Fire and explosion occurred.												
Flow Rate Unit:	Screening Sample:	N												
Lab Exposure Type:	Practical Size Fraction:													
Lab Sample Number:														
Sample Type and Media:		Bulk												
Readings														
<table border="1"> <thead> <tr> <th colspan="2">Sample Reading</th> </tr> <tr> <th>Time In</th> <th>Time Out</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>		Sample Reading		Time In	Time Out			<table border="1"> <thead> <tr> <th colspan="2">Pump Check</th> </tr> <tr> <th>Time</th> <th>Read/Action/Loca...</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Pump Check		Time	Read/Action/Loca...		
Sample Reading														
Time In	Time Out													
Pump Check														
Time	Read/Action/Loca...													
Direct Reading Information														

336 319

Direct Reading Type:		Total Sample Time Override:							
Total Sample Time (Mins):		Total Sample Time Override reason:							
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
<b>Sample Result</b>									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							

Sampling Report U.S. DEPARTMENT OF LABOR Occupational Safety and Health Administration

1. Reporting ID 214500	2. Inspection Number 704178	3. Sampling Number ▶ 96448	
4. Establishment Name Sun Chemical Inc			
5. CSHO ID (b) (7)(C)	6. Sampling Date 23 NOV 2012	7. Shipping Date 30 NOV 2012	8. Date Result Received
9. Job Title Not applicable		10. Occupational Code	11. Number Exposed
12. Frequency of Exposure			

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	PPE	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

26. Analyst's Comments OSHA 48 (Analytical Method)  The reporting limit for 2037 is 0.59 % by weight. The sample vials were sealed with tape, not OSHA seal.	27. Chain of Custody a. Seals Intact b. Rec'd In Lab c. Rec'd by Anal. d. Anal. Completed e. Calc. Checked f. Supr. OK'd	Init.	Date
		(b) (7)(C)	N
			04 DEC 2012
			02 JAN 2013
			03 JAN 2013
			07 JAN 2013
			07 JAN 2013

28 Submission number KO2  
 29 Lab Sample No. L30690  
 (Minutes/Type) B

30. Analyte	31. Analysis Results/	32. Sample included in calculations of
-------------	-----------------------	--

2037 Petroleum Distillates (Naphtha) (Rubber Solvent) % ND

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
 2037

--

- |                                     |  |
|-------------------------------------|--|
| L MILLIGRAMS PER LITER (DRINE)      | D MICROGRAMS PER DECILITER (BLOOD)         |
| C PICO CURIES PER LITER (RADON GAS) | P PARTS PER MILLION                        |
| F FIBERS PER CUBIC CENTIMETER       | X MICROGRAMS                               |
| M MILLIGRAMS PER CUBIC METER        | % PERCENT                                  |
| Y MILLIGRAMS                        | E FIBERS PER MM2                           |
| N NONE                              | G MILLION PARTICLES PER CUBIC FOOT (MPPCF) |

Sampling Number: 96448

338 389  
321

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 96448

~~329~~ 320  
322

Thu Jul 29, 2004 5:00pm

MOD	Date	Reporting ID JUL600	Inspection Number 704 078	Sampling Number <del>105 088</del> 106 088
Establishment Name Sun Chemical Inc.		Person Performing Sampling (Signature) (b) (7)(C)		Shipping Date
Employee (Name, Address, Telephone Number) Bulk		Last Name (b) (7)(C)		CSHO ID (b) (7)(C)
Job Title Pro-mix operator		Occupation Code		Exposure Information a. Number (b) (7)(C)
PPE (Type and Effectiveness) Safety glasses & gloves		Weather Conditions Indoor		b. Duration
Job Description, Operation, Work Location(s), Ventilation and Controls of dust which is a part of dust collection system, Sample that is collected from a piece of duct.				

Pump Number:	Sampling Data
Lab Sample Number	
Sample Submission Number (b) (7)(C) 43	
Sample Type Bulk	
Sample Media	
Filter/Tube No. (b) (7)(C) -43	
Time On/Off	
Total Time (in minutes)	
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min	
Volume (in liters)	
Net Sample Weight (in mg)	

Small quantity of the sample made it difficult to get accurate analysis

Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations			
Carbon Black	T			
Gilsonite	T			
Bentonite	T			
clay & kaolin	T			

Interference and IH Comments to Lab	Supporting Samples	Chain of Custody	Initials	Date
	a. Blanks	Seals Intact	Y N	
	b. Bulks	Received in Lab		
	(b) (7)(C) -43	Received by Analyst		
		Analysis Complete		
		Calculation Checked		
		Supervisor OK'd		

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 430  
 379





Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID 214500	2. Inspection Number 704178	3. Sampling Number ▶ 106088	
4. Establishment Name SUN CHEMICAL, INC.			
5. CSHO ID (b) (7)(C)	6. Sampling Date 19 DEC 2012	7. Shipping Date 19 DEC 2012	8. Date Result Received
9. Job Title Not applicable		10. Occupational Code	11. Number Exposed
12. Frequency of Exposure			

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA Exp	Eng	PPE	Trng	Med	OTH	

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 918 and submit them directly to IMIS

25. Analyst's Comments (Analytical Method) OSHA ID-196

(b) (7)(C)

27. Chain of Custody	Init.	Date
a. Seals Intact	Y	
b. Rec'd In Lab	(b) (7)(C)	26 DEC 2012
c. Rec'd by Anal.		16 JAN 2013
d. Anal. Completed		28 JAN 2013
e. Calc. Checked		30 JAN 2013
f. Supr. OK'd		30 JAN 2013

L31845 0527 Reporting Limit = 0.1 Mg

SAE = 0.184

The Carbon Black, gravimetric method is very weight restrictive. The sample weight for bulk samples is only 10 to 20 milligrams. Duplicate testing of the bulk samples show the materials to be non-homogenous. Therefore, the results reported are approximations only, due to the combination of small sample size and non-homogenous material.

28 Submission number 04.3

29 Lab Sample No. L31845 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

0527 Carbon Black 26.0000  
% @

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysts. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
0527

L MILLIGRAMS PER LITER (URINE) D MICROGRAMS PER DECILITER (BLOOD)

Sampling Number: 106088

362  
432  
~~351~~

Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

- C PICO CURIES PER LITER (RADON GAS)
- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- BM/S Bar Meters per Second
- P PARTS PER MILLION
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 106088

363  
382 433

Air Sampling Worksheet

U.S. Department of Labor  
Occupational Safety and Health Administration



Thu Jul 29, 2004 5:00pm

MOD	Date	Reporting ID 214520	Inspection Number 404 178	Sampling Number 106 128
Establishment Name Sun Chemical, Inc		Person Performing Sampling (Signature) (b) (7)(C)		Shipping Date
Employee (Name, Address, Telephone Number) Bulk		Last Name (b) (7)(C)		CSHO ID (b) (7)(C)
Job Title		Occupation Code		Exposure Information a. Number (b) (7)(C)
PPE (Type and Effectiveness) Safety glasses & gloves		Weather Conditions Indoor		b. Duration
Job Description, Operation, Work Location(s), Ventilation and Controls collection duct. The employees add carbon black, Gilsonite, Bentonite clay, Kaolin, & petroleum distillate to a vessel & blend the mixture. Sample is collected from a piece of dust.				
Pump Number:		Sampling Data		
Lab Sample Number				
Sample Submission Number	(b) (7)(C) 2.1	(1 end)		
Sample Type	Bulk			
Sample Media				
Filter/Tube No.	(b) (7)(C) 2.1	(1 end)		
Time On/Off			Non detected	Non-detected
Total Time (in minutes)				
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min				
Volume (in liters)				
Net Sample Weight (in mg)				
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations			
Carbon Black	T			
Gilsonite	T			
Bentonite	T			
clay & Kaolin	T			
petroleum distillate	T			
Interference and HI Comments to Lab	Supporting Samples		Chain of Custody	Initials
	a. Blanks		Seals Intact	Y N
	b. Bulks		Received in Lab	
	(b) (7)(C) 2.1		Received by Analyst	
			Analysis Complete	
			Calculation Checked	
			Supervisor OK'd	
			Case File Page	of

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Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 106128

345  
~~344~~ 415



**Air Sampling Worksheet**

**U.S. Department of Labor  
Occupational Safety and Health Administration**



The Jul 29, 2004 5:00pm

MOD	Date	Reporting ID 414520	Inspection Number 404 178	Sampling Number 106 128
Establishment Name Sun Chemical Inc		Person Performing Sampling (Signature) (b)(7)(C)		Sampling Date 10/5/14
Person Performing Sampling (Signature) (b)(7)(C)		Last Name (b)(7)(C)		Shipping Date
Employee (Name, Address, Telephone No) Bulk		Exposure Information a. Number (b)(7)(C)		CSHO ID (b)(7)(C)
Job Title		Occupation Code		Frequency daily
PPB (Type and Effectiveness) Safety glasses & gloves		Weather Conditions Indoor		Photo(s)
Job Description, Operation, Work Location(s), Ventilation and Controls collection duct. The employees add carbon black, Gilsonite, Bentonite clay, Kaolin, & petroleum distillate to a vessel & blend the		Pump Checks and Adjustments		

Pump Number:		Sampling Data		Cont'd
Lab Sample Number				Mixture.
Sample Submission Number	TK-2.1 (1 end)			
Sample Type	Bulk			
Sample Media				
Filter/Tube No.	TK-2.1 (1 end)			
Time On/Off			Non detected	Non-detected
Total Time (in minutes)				
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min				
Volume (in liters)				
Net Sample Weight (in mg)				

Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations			
Carbon Black	T			
Gilsonite	T			
Bentonite	T			
clay & Kaolin	T			
petroleum distillate	T			

Interference and HI Comments to Lab	Supporting Samples	Chain of Custody	Initials	Date
	a. Blanks	Seals Intact	Y N	
		Received in Lab		
		Received by Analyst		
	b. Bulks	Analysis Complete		
		Calculation Checked		
		Supervisor OK'd		





Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 106128

340  
358 469

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

BM/B Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 106388

342  
360 411

**Sampling Header Information**

Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 106128
Activity Type: Enforcement	Activity Status: Final	Sampling Date: 12/05/2012
Employee Name:		

**Health Sampling Details**

**Sample Detail for Sample ID: 109338**

**Sampling Detail Info**

Sample Submission ID: 109338	Sample Submission Number: 2.1
Sample Method:	Hazard Class: Chemical
Sample Method #:	Substance Bulk Identification
Comments:	Codes:
Sample Description:	Lab Analysis Requested?: Y
Sample Location: 390 Central Ave., EAST RUTHERFORD, NJ 07073	

**Equipment Info**

Serial Number:	Equipment type:
Bar Code:	Manufacturer:
Field Name:	Make:
Pre Calibrate Session ID:	Model:
Post Calibrate Session ID:	

**Primary details**

Filter/Tube Number: 2.1	Sample Type: Bulk
Total Sample Time (Mins):	Volume:
Total Sample Time Override:	Volume Units:
Total Sample Time Override reason:	Rush Indicator: Y
Flow Rate:	Rush Reason: The sample was involved in a fire and an explosion.
Flow Rate Unit:	Screening Sample: N
Lab Exposure Type:	Practical Size Fraction:
Lab Sample Number:	
Sample Type and Media: Bulk	

**Readings**

<b>Sample Reading</b>		<b>Pump Check</b>	
Time In	Time Out	Time	Read/Action/Loca...

**Direct Reading Information**

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434  
383

Direct Reading Type:		Total Sample Time (Mins):		Total Sample Time Override:		Total Sample Time Override reason:			
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:				Sample Result Resource:					
Lab Analysis Requested:				Analyst Comments:					
<b>Sample Result</b>									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							

365  
435  
384



Thu Jul 29, 2004 5:00pm

MOD	Date	Reporting ID 214500	Inspection Number 7011 1A8	Sampling Number 106 328
Establishment Name Sun Chemical Inc			Sampling Date 07/29	Shipping Date
Person Performing Sampling (Signature) (b) (7)(C)		Print Last Name (b) (7)(C)		CSHO ID (b) (7)(C)
Employee (Name, Address, Telephone Number) Bulk			Exposure Information a. (b) (7)(C)	
Job Title			Frequency Daily	Weather Conditions (Photo(s)) Indoor
PPE (Type and Effectiveness) Employees wore safety glasses & gloves			Pump Checks and Adjustments	
Job Description, Operation, Work Location(s), Ventilation and Controls Sample that was collected from a segment of the dust collection duct. The sample may contain a variety of substances.				
Pump Number:		Cont'd		

Pump Number:		Sampling Data			
Lab Sample Number					
Sample Submission Number	(b) (7)(C) 6, 2				
Sample Type	Bulk				
Sample Media					
Filter/Tube No.	(b) (7)(C) 6, 2		Not detected		
Time On/Off	///				
Total Time (in minutes)	///				
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min	///				
Volume (in liters)	///				
Net Sample Weight (in mg)	///				
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations				
Carbon Black	T				
Perlite	T				
Bentone	T				
clay & kaolin	T				
Petroleum distillate	T				
Interference and IH Comments to Lab	Supporting Samples		Chain of Custody		Initials
	a. Blanks		Seals Intact		Y N
	b. Bulks		Received in Lab		
	(b) (7)(C) 6, 2		Received by Analyst		
			Analysis Complete		
			Calculation Checked		
			Supervisor OK'd.		

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P R E	Pump Mfg. & SN	Flow Rate Calculations			
	Voltage Checked? <input type="checkbox"/> Yes <input type="checkbox"/> No				
	Location/T & Alt.				
	Flow Rate	Method <input type="checkbox"/> Bubble <input type="checkbox"/> PR	Initials	Date/Time	
Post Sampling Calibration Records					
P O S T	Location/T & Alt.	Flow Rate Calculations			
	Flow Rate	Initials		Date/Time	
Sampling Weight Calculation					
Filter No					
Final Weight (mg)					
Initial Weight (mg)					
Weight Gained (mg)					
Blank Adjustment					
Net Sample Weight (mg)					

Calculations and Notes

The dust collection system was involved in a fire & an explosion



**Sampling Header Information**

Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 106368
Activity Type: Enforcement	Activity Final Status:	Sampling Date: 12/05/2012
Employee Name:		

**Health Sampling Details**

**Sample Detail for Sample ID: 109658**

**Sampling Detail Info**

Sample Submission ID: 109658	Sample Submission Number: 4.0
Sample Method:	Hazard Class: Chemical
Sample Method #:	Substance Bulk Identification
Comments:	Lab Analysis Requested?: Y
Sample Description:	
Sample Location: 390 Central Ave , EAST RUTHERFORD, NJ 07073	

**Equipment Info**

Serial Number:	Equipment type:
Bar Code:	Manufacturer:
Field Name:	Make:
Pre Calibrate Session ID:	Model:
Post Calibrate Session ID:	

**Primary details**

Filter/Tube Number: 4.0	Sample Type: Bulk
Total Sample Time (Mins):	Volume:
Total Sample Time Override:	Volume Units:
Total Sample Time Override reason:	Rush Indicator: Y
Flow Rate:	Rush Reason: The sample was involved in an explosion and a fire
Flow Rate Unit:	Screening Sample: N
Lab Exposure Type:	Practical Size Fraction:
Lab Sample Number:	
Sample Type and Media: Bulk	

**Readings**

**Sample Reading**

Time In : Time Out

**Pump Check**

Time : Read/Action/Loca...

**Direct Reading Information**

366  
436

Direct Reading Type:		Total Sample Time Override:							
Total Sample Time (Mins):		Total Sample Time Override reason:							
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
<b>Sample Result</b>									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							

367  
386 4:37

Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID 214500	2. Inspection Number 704178	3. Sampling Number ▶ 106388	
4. Establishment Name Sun Chemical Inc			
5. CUID ID (b) (7)(C)	6. Sampling Date 05 DEC 2012	7. Shipping Date 19 DEC 2012	8. Date Result Received
9. Job Title Not applicable		10. Occupational Code	11. Number Exposures
12. Frequency of Exposure			

Exposure Summary

14. Substance Code	15. Rqstd	16. Smp Type	17. Exp type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation Information							
									No Cit	FTA	Over Exp	Eng	PPH	Teng	Mad	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 918 and submit them directly to IMIS

26. Analyst's Comments (Analytical Method) OSHA 40

The reporting limits for 2037 for L31835, L31836, L31837, L31838, L31839, L31840, L31841, L31842, L31843 and L31844 are 0.55% , 0.353 % , 0.664 % , 0.314 % , 0.437 % , 0.319 % , 0.278 % , 0.441 % , 0.234 % and 0.349 % , respectively.

27. Chain of Custody	Init.	Date
a. Seals Intact	(b) (7)(C)	Y
b. Rec'd In Lab		26 DEC 2012
c. Rec'd by Anal.		17 JAN 2013
d. Anal. Completed		18 JAN 2013
e. Calc. Checked		18 JAN 2013
f. Supr. OK'd		22 JAN 2013

28 Submission number (b) (7)(C)

29 Lab Sample No. L31840  
 (Minutes/Type) B

30. Analyte	31. Analysis Results/ 32. Sample included in calculations of
-------------	--

2037 Petroleum  
 Sulfonates  
 (Naphtila)  
 (Rubber  
 Solvent) % ND

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysts. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
 2037

- |                                     |  |
|-------------------------------------|--|
| L MILLIGRAMS PER LITER (URINE)      | D MICROGRAMS PER DECILITER (BLOOD)         |
| C PICO CURIES PER LITER (RADON GAS) | V PARTS PER MILLION                        |
| F FIBERS PER CUBIC CENTIMETER       | X MICROGRAMS                               |
| M MILLIGRAMS PER CUBIC METER        | % PERCENT                                  |
| Y MILLIGRAMS                        | F FIBERS PER MGT                           |
| N NONE                              | G MILLION PARTICLES PER CUBIC FOOT (MPPCF) |

Sampling Number: 106388

336  
~~353~~ 404

AI Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

NS The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (i.e. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 106388

337  
354 405





Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID 214500	2. Inspection Number 704178	3. Sampling Number 106408
4. Establishment Name Sun Chemical Inc		
5. CSHO ID (b)(7)(C)	6. Sampling Date 05 DEC 2012	7. Shipping Date 19 DEC 2012
8. Date Result Received		
9. Job Title Not applicable		10. Occupational Code
11. Number Exposed		
12. Frequency of Exposure		

Exposure Summary

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	PTA	Over Exp	Eng	PPE	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 91B and submit them directly to IMIS

26. Analyst's Comments (Analytical Method)  OSHA 48  The reporting limits for 2037 for L31835, L31836, L31837, L31838, L31839, L31840, L31841, L31842, L31843 and L31844 are 0.554 %, 0.353 %, 0.664 %, 0.315 %, 0.437 %, 0.319 %, 0.278 %, 0.441 %, 0.234 % and 0.349 %, respectively.	27. Chain of Custody a. Seals Intact	Init. Date Y
	b. Rec'd In Lab	(b)(7)(C) 26 DEC 2012
	c. Rec'd by Anal.	17 JAN 2013
	d. Anal. Completed	18 JAN 2013
	e. Calc. Checked	18 JAN 2013
	f. Supr. OK'd	22 JAN 2013

28 Submission number 6.1

29 Lab Sample No. L31839 (Minutes/Type) B

30. Analyte	31. Analysis Results/ 32. Sample included in calculations of
-------------	--

2037 Petroleum Distillates (Naphtha) (Rubber Solvent) % ND

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of an analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
2037

--

- L MILLIGRAMS PER LITER (URINE)
- C PICO CURIES PER LITER (RADON GAS)
- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- D MICROGRAMS PER DECILITER (BLOOD)
- P PARTS PER MILLION
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 106408

371-422  
352



Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

BM/8 Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability, if there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 106408

353  
372 423

Sampling Header Information	
Establishment Name: Sun Chemical Inc	Activity ID: 704178
Activity Type: Enforcement	Activity Final Status:
Employee Name:	Sampling Number: 106408
	Sampling Date: 12/05/2012
Health Sampling Details	
Sample Detail for Sample ID: 109678	
Sampling Detail Info	
Sample Submission ID: 109678	Sample Submission Number: 006.1
Sample Method:	Hazard Class: Chemical
Sample Method #:	Substance Bulk Identification
Comments:	Lab Analysis Requested?: Y
Sample Description: Sample that was collected from a segment of dust collection duct which was involved in a fire and an explosion.	
Sample Location: 390 Central Ave , EAST RUTHERFORD, NJ 07073	
Equipment Info	
Serial Number:	Equipment type:
Bar Code:	Manufacturer:
Field Name:	Make:
Pre Calibrate Session ID:	Model:
Post Calibrate Session ID:	
Primary details	
Filter/Tube Number: 006.1	Sample Type: Bulk
Total Sample Time (Mins):	Volume:
Total Sample Time Override:	Volume Units:
Total Sample Time Override reason:	Rush Indicator: Y
Flow Rate:	Rush Reason: The was involved in an explosion and a fire.
Flow Rate Unit:	Screening Sample: N
Lab Exposure Type:	Practical Size Fraction:
Lab Sample Number:	
Sample Type and Media:	
Readings	
Sample Reading	Pump Check
Time In Time Out	Time Read/Action/Loca...

368  
~~307~~ 478

Direct Reading Information									
Direct Reading Type:					Total Sample Time				
Total Sample Time (Mins):					Override:				
					Total Sample Time				
					Override				
					reason:				
Exposure Type Details									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
Lab Sample Result Information									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
Sample Result									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
Sample Processing Information									
Sampling Processing Status:									
Sampling Substance Reading									
Substance Code	Reporting ...	Sampling Analytical Error							

369  
~~388~~ 439

Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID: 214500  
 2. Inspection Number: 704178  
 3. Sampling Number: 106468  
 4. Establishment Name: Sun Chemical Inc  
 5. CSHO ID: (b)(7)(C)  
 6. Sampling Date: 05 DEC 2012  
 7. Shipping Date: 19 DEC 2012  
 8. Date Result Received:  
 9. Job Title: Not applicable  
 10. Occupational Code:  
 11. Number Exposed:  
 12. Frequency of Exposure:

Exposure Summary

14. Substance Code	15. Rqstd	16. Empl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	PPE	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 91B and submit them directly to INIS

26. Analyst's Comments (Analytical Method)  The reporting limits for 2037 for L31835, L31836, L31837, L31838, L31839, L31840, L31841, L31842, L31843 and L31844 are 0.554 %, 0.353 %, 0.664 %, 0.315 %, 0.437 %, 0.319 %, 0.278 %, 0.441 %, 0.234 % and 0.349 %, respectively.	27. Chain of Custody	Init. Date
	a. Seals Intact	Y
	b. Rec'd In Lab	(b)(7)(C) 26 DEC 2012
	c. Rec'd by Anal.	17 JAN 2013
	d. Anal. Completed	18 JAN 2013
	e. Calc. Checked	18 JAN 2013
f. Supr. OK'd	22 JAN 2013	

28 Submission number: (b)(7)(C) 2.1(106)

29 Lab Sample No. L31838 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

2037 Petroleum Distillates (Naphtha) (Rubber Solvent) % ND

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value  
 2037

[Empty box for results]

- L MILLIGRAMS PER LITER (URINE)
- C PICO CURIES PER LITER (RADON GAS)
- F FIBERS PER CUBIC CENTIMETER
- M MILLIGRAMS PER CUBIC METER
- Y MILLIGRAMS
- N NONE
- D MICROGRAMS PER DECILITER (BLOOD)
- P PARTS PER MILLION
- X MICROGRAMS
- % PERCENT
- E FIBERS PER MM2
- G MILLION PARTICLES PER CUBIC FOOT (MPPCF)

Sampling Number: 106468

356  
 375 426

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 106468

357  
376-427

Ready For Lab	
<b>Sampling Header Information</b>	
Establishment Name: Sun Chemical Inc	Activity ID: 704178
Activity Type: Enforcement	Activity Status: Final
Employee Name:	Sampling Number: 106468
	Sampling Date: 12/05/2012
<b>Health Sampling Details</b>	
<b>Sample Detail for Sample ID: 109698</b>	
<b>Sampling Detail Info</b>	
Sample Submission ID: 109698	Sample Submission Number: 2.1(106)
Sample Method:	Hazard Class: Chemical
Sample Method #:	Substance Bulk Identification
Comments:	Lab Analysis Requested?: Y
Sample Description: Sample collected from a rubber hose that was attached to the vessel, #106.	
Sample Location: 390 Central Ave, EAST RUTHERFORD, NJ 07073	
<b>Equipment Info</b>	
Serial Number:	Equipment type:
Bar Code:	Manufacturer:
Field Name:	Make:
Pre Calibrate Session ID:	Model:
Post Calibrate Session ID:	
<b>Primary details</b>	
Filter/Tube Number: 2.1(106)	Sample Type: Bulk
Total Sample Time (Mins):	Volume:
Total Sample Time Override:	Volume Units:
Total Sample Time Override reason:	Rush Indicator: Y
Flow Rate:	Rush Reason: Material was involved in a fire and an explosion.
Flow Rate Unit:	Screening Sample: N
Lab Exposure Type:	Practical Size Fraction:
Lab Sample Number:	
Sample Type and Media:	
<b>Readings</b>	
<b>Sample Reading</b>	<b>Pump Check</b>
Time In : Time Out	Time : Read/Action/Loca...
<b>Direct Reading Information</b>	

358  
~~428~~  
 377

Total Sample Time (Mins):	Direct Reading Type:	Total Sample Time Override:							
		Total Sample Time Override reason:							
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
<b>Sample Result</b>									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							

359  
~~429~~  
 378



1. Reporting ID 214500 2. Inspection Number 704178 3. Sampling Number ▶ 106528

4. Establishment Name Sun Chemical Inc

5. CSHO ID (b) (7)(C) 6. Sampling Date 05 DEC 2012 7. Shipping Date 19 DEC 2012 8. Date Result Received

9. Job Title Not applicable 10. Occupational Code 11. Number Exposed

12. Frequency of Exposure

**Exposure Summary**

14. Substance Code	15. Rqstd	16. Smpl Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information							
									No Cit	FTA	Over Exp	Eng	PFM	Trng	Med	OTH

TWA calculated on actual time sampled  
 The I. H. is free to make changes on the Form 918 and submit them directly to IMIS

26. Analyst's Comments (Analytical Method)  OSHA 48  The reporting limits for 2037 for L31835, L31836, L31837, L31838, L31839, L31840, L31841, L31842, L31843 and L31844 are 0.554 %, 0.353 %, 0.664 %, 0.315 %, 0.437 %, 0.319 %, 0.278 %, 0.441 %, 0.234 % and 0.349 %, respectively.	27. Chain of Custody	Init. Date
	a. Seals Intact	Y
	b. Rec'd In Lab	<span style="border: 1px solid black; padding: 2px;">(b) (7)(C)</span> 26 DEC 2012
	c. Rec'd by Anal.	17 JAN 2013
	d. Anal. Completed	18 JAN 2013
	e. Calc. Checked	18 JAN 2013
	f. Supr. OK'd	22 JAN 2013

28 Submission number 003.2

29 Lab Sample No. L31837 (Minutes/Type) B

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

2037 Petroleum Distillates (Naphtha) (Rubber Solvent) % ND

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of an analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code BAE Value  
2037

- |                                     |  |
|-------------------------------------|--|
| L MILLIGRAMS PER LITER (URINE)      | D MICROGRAMS PER DECILITER (BLOOD)         |
| C PICO CURIES PER LITER (RADON GAS) | P PARTS PER MILLION                        |
| F FIBERS PER CUBIC CENTIMETER       | X MICROGRAMS                               |
| M MILLIGRAMS PER CUBIC METER        | % PERCENT                                  |
| Y MILLIGRAMS                        | E FIBERS PER MM2                           |
| N NONE                              | G MILLION PARTICLES PER CUBIC FOOT (MPPCF) |

Sampling Number: 106528

346  
365 416

BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability, if there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

Sampling Number: 106528

347  
3106 417

OIS		Ready For Lab								
<b>Sampling Header Information</b>										
Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 106528								
Activity Type: Enforcement	Activity Status: Final	Sampling Date: 12/05/2012								
Employee Name:										
<b>Health Sampling Details</b>										
<b>Sample Detail for Sample ID: 109718</b>										
<b>Sampling Detail Info</b>										
Sample Submission ID: 109718	Sample Submission Number: 3.2									
Sample Method:	Hazard Class: Chemical									
Sample Method #:	Substance Bulk Identification									
Comments:	Codes:									
Sample Description: Sample collected from a segment of dust collection duct.	Lab Analysis Requested?: Y									
Sample Location: 390 Central Ave, EAST RUTHERFORD, NJ 07073										
<b>Equipment Info</b>										
Serial Number:	Equipment type:									
Bar Code:	Manufacturer:									
Field Name:	Make:									
Pra Calibrate Session ID:	Model:									
Post Calibrate Session ID:										
<b>Primary details</b>										
Filter/Tube Number: 3.2	Sample Type: Bulk									
Total Sample Time (Mins):	Volume:									
Total Sample Time Override:	Volume Units:									
Total Sample Time Override reason:	Rush Indicator: Y									
Flow Rate:	Rush Reason: Sample was involved in a fire and an explosion									
Flow Rate Unit:	Screening Sample: N									
Lab Exposure Type:	Practical Size Fraction:									
Lab Sample Number:										
Sample Type and Media: Bulk										
<b>Readings</b>										
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sample Reading</th> </tr> <tr> <td>Time In</td> <td>Time Out</td> </tr> </table>		Sample Reading		Time In	Time Out	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Pump Check</th> </tr> <tr> <td>Time</td> <td>Read/Action/Loca...</td> </tr> </table>	Pump Check		Time	Read/Action/Loca...
Sample Reading										
Time In	Time Out									
Pump Check										
Time	Read/Action/Loca...									
<b>Direct Reading Information</b>										

348  
~~367 418~~

Total Sample Time (Mins):	Direct Reading Type:	Total Sample Time Override:							
Total Sample Time Override reason:									
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:					Sample Result Resource:				
Lab Analysis Requested:					Analyst Comments:				
<b>Sample Result</b>									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							

349  
 368 419



**Air Sampling Worksheet**

U.S. Department of Labor  
Occupational Safety and Health Administration



Tue May 21, 2002 11:54am

MOD	Date	Reporting ID	Inspection Number	Sampling Number
		304 500	304 678	106 818
Establishment Name		Person Performing Sampling (Signature)		Shipping Date
Sun Chemical Inc		(b) (7)(C)		5/19/02
Employee (Name, Address, Telephone Number)		Print Last Name	CSHO ID	
Bulk		(b) (7)(C)	(b) (7)(C)	
Job Title		Occupation Code	Exposure Information	a. No. of samples
				(b) (7)(C)
PPE (Type and Effectiveness)		Weather Conditions	Photo(s)	
Safety glasses & gloves		Indoor	Y	
Job Description, Operation, Work Location(s), Ventilation and Controls		Pump Checks and Adjustments		
Sample was collected from a flexible that was attached to the back of the dump station, the hose a part of dust collection system.				
Pump Number:	Sampling Data			Cont'd
Lab Sample Number				
Sample Submission Number	(b) (7)(C) Dump A			
Sample Type	Bulk			
Sample Media				
Filter/Tube No.	(b) (7)(C) Dump A			
Time On/Off				not positive for carbon black
Total Time (in minutes)				
Flow Rate <input type="checkbox"/> l/min <input type="checkbox"/> cc/min				
Volume (in liters)				
Net Sample Weight (in mg)				
Analyze Samples for:	Indicate Which Samples to Include in TWA, Ceiling, etc. Calculations			
Carbon black	I			
Gilsonite	I			
Bentonite	I			
Clay/Kaolin	I			
Interference and IR Comments to Lab	Supporting Samples		Chain of Custody	Initials
Can we obtain KST and NEL?	a. Blanks		Seals Intact	Y N
	b. Bulks		Received in Lab	
	Dump A		Received by Analyst	
			Analysis Complete	
		Calculation Checked		
		Supervisor OK'd		
		Case File Page		of





Air Sampling Report U.S. Department of Labor Occupational Safety and Health Administration

1. Reporting ID: 214500  
 2. Inspection Number: 704178  
 3. Sampling Number: 106848  
 4. Establishment Name: SUN CHEMICAL, INC.  
 5. CSHO ID: (b)(7)(C)  
 6. Sampling Date: 04 DEC 2012  
 7. Shipping Date: 19 DEC 2012  
 8. Date Result Received:  
 9. Job Title: Not applicable  
 10. Occupational Code:  
 11. Number Exposed:  
 12. Frequency of Exposure:

Exposure Summary

14. Substance Code	15. Rqstd	16. Smp Type	17. Exp Type	18. Exp Level	19. Units	20. PEL	21. Adj	22. Severity	23. Citation information						
									No Cit	FTA	Over Exp	Eng	PPH	Trng	Med

FWA calculated on actual time sampled  
 The I. R. is free to make changes on the Form 91B and submit them directly to IMIS

25. Analyst's Comments (Analytical Method): OSHA ID-2018G

(b)(7)(C)

27. Chain of Custody	Init.	Date
a. Seals Intact		Y
b. Rec'd In Lab	(b)(7)(C)	26 DEC 2012
c. Rec'd by Anal.		16 JAN 2013
d. Anal. Completed		28 JAN 2013
e. Calc. Checked		30 JAN 2013
f. Supr. OK'd		30 JAN 2013

L31834 9527 Reporting Limit = 0.1 Mg  
 SAE = 0.164

The Carbon Black, gravimetric method is very weight restrictive. The sample weight for bulk samples is only 10 to 20 milligrams. Duplicate testing of the bulk samples show the materials to be non-homogenous. Therefore, the results reported are approximations only, due to the combination of small sample size and non-homogenous material.

L31834 N102 Results of Kst Testing for explosibility: Sample was tested to determine if the material is explosive. The testing was performed using a Bom 20 liter low turbulence chamber. Testing resulted in a negative test, the material is NOT explosive. It is possible that the material is hazardous under different conditions. The results obtained from this equipment can NOT be used in designing or engineering protective safety equipment.

Results of the sieve size analysis were:  
 < 20 mesh = 0.83 %  
 < 40 mesh = 0.1 %  
 < 200 mesh = 0 %  
 % Moisture = 0.5 %

392 393  
 325

Sampling Report  
 Department of Labor Occupational Safety and Health Administration

28 Submission number **DUMP A**

29 Lab Sample No. **L31834**  
 (Minutes/Type) **B**

30. Analyte 31. Analysis Results/ 32. Sample included in calculations of

0527 Carbon Black 26.0000  
 % @

M102 MAXIMUM NORMALIZED DP/DT **BM/S ND**

M104 Moisture Content 0.5000  
 % MOIS

Because the results for air samples are used in further calculations, the number of figures reported in section 31 may not reflect the actual precision of the analysis. Calculated confidence limits (UCL & LCL) should be rounded to no more than three significant figures. The precision of analysis for wipe samples and for bulk material samples justify rounding results to no more than two significant figures.

The Sampling and Analytical Error (SAE) is the current value for the specific chemical(s) and should be used for the calculations. Blank values are reported for reference only. Appropriate blank corrections have been applied to the samples by the Salt Lake Technical Center. Blank results are less than the reporting limit(s) unless otherwise noted.

33. Analyte Code SAE Value

0527

M102

M104

- |   |                                   |   |  |
|---|-----------------------------------|---|--|
| L | MILLIGRAMS PER LITER (URINE)      | D | MICROGRAMS PER DECILITER (BLOOD)         |
| C | PICO CURIES PER LITER (RADON GAS) | P | PARTS PER MILLION                        |
| F | FIBERS PER CUBIC CENTIMETER       | X | MICROGRAMS                               |
| M | MILLIGRAMS PER CUBIC METER        | % | PERCENT                                  |
| Y | MILLIGRAMS                        | E | FIBERS PER MM2                           |
| N | NONE                              | G | MILLION PARTICLES PER CUBIC FOOT (MPPCF) |
- BM/S Bar Meters per Second

Bulk samples are analyzed to provide an estimate of the composition of the material submitted. The results reported should be considered semi-quantitative only. Reporting limit for quartz in bulk samples is 1%

ND The results are below the reporting limit.

Analyte codes are chosen by the laboratory. The I. H. should review them for applicability. If there are any questions call the laboratory for appropriate analyte codes (ie. ICP uses fume analyte codes when the IH may have sampled for dust).

~~343~~ 394  
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Health Sampling Details - Print Review

Sampling Header Information		
Establishment Name: Sun Chemical Inc	Activity ID: 704178	Sampling Number: 106848
Activity Type: Enforcement	Activity Status: Final	Sampling Date: 12/04/2012
Employee Name:		

Health Sampling Details	
<b>Sample Detail for Sample ID: 110058</b>	
<b>Sampling Detail Info</b>	
Sample Submission ID: 110058	Sample Submission Number: <b>DUMP A</b>
Sample Method:	Hazard Class: Chemical
Sample Method #:	Substance Codes: Bulk Identification
Comments:	Lab Analysis Requested?: Y
Sample Description:	
Sample Location: 390 Central Ave , EAST RUTHERFORD, NJ 07073	

Equipment Info	
Serial Number:	Equipment type:
Bar Code:	Manufacturer:
Field Name:	Make:
Pre Calibrate Session ID:	Model:
Post Calibrate Session ID:	

Primary details	
Filter/Tube Number: <b>(b) (7)(C)</b>	Sample Type: Bulk
Total Sample Time (Mins):	Volume:
Total Sample Time Override:	Volume Units:
Total Sample Time Override reason:	Rush Indicator: N
Flow Rate:	Rush Reason:
Flow Rate Unit:	Screening Sample: N
Lab Exposure Type:	Practical Size Fraction:
Lab Sample Number:	
Sample Type and Media:	

Readings													
<table border="1"> <thead> <tr> <th colspan="2">Sample Reading</th> </tr> <tr> <th>Time In</th> <th>Time Out</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Sample Reading		Time In	Time Out			<table border="1"> <thead> <tr> <th colspan="2">Pump Check</th> </tr> <tr> <th>Time</th> <th>Read/Action/Loc...</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Pump Check		Time	Read/Action/Loc...		
Sample Reading													
Time In	Time Out												
Pump Check													
Time	Read/Action/Loc...												

Direct Reading Information

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Direct Reading Type:		Total Sample Time (Mins):		Total Sample Time Override:		Total Sample Time Override reason:			
<b>Exposure Type Details</b>									
Time On	Time Off	Exposure Type	Time (mins)	Location	Reading Value	Reading Unit	OEL Type	OEL Value	Severity
<b>Lab Sample Result Information</b>									
Analyst Analytical Method:				Sample Result Resource:					
Lab Analysis Requested:				Analyst Comments:					
<b>Sample Result</b>									
Substance Code	Lab Result...	Value	Units	Weight	Weight U...				
<b>Sample Processing Information</b>									
Sampling Processing Status:									
<b>Sampling Substance Reading</b>									
Substance Code	Reporting ...	Sampling Analytical Error							

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345 396