

## Offer Sheet

Product	DGA (Diglycolamine) – spent material from ethylene manufacturing
Quantity	5,000 gallons/week in tanker
Net weight	42,500 lbs.
Manufacture date	
Availability	Ongoing
Location	Houston, TX
Date	10/21/25
COA & SDS	COA is for SPENT material, SDS is for virgin material



Diglycolamine (DGA), or 2-(2-Aminoethoxy)ethanol, is a colorless, hygroscopic liquid with both amine and hydroxyl functional groups. This dual functionality makes it highly versatile as a **chemical intermediate, solvent, and neutralizing agent** across several industrial sectors.

### 1. Gas Treatment and Refining

- **Acid Gas Removal:** DGA is widely used in **natural gas and refinery gas sweetening processes** to remove acid gases such as hydrogen sulfide (H<sub>2</sub>S) and carbon dioxide (CO<sub>2</sub>).
- **DGA Process:** It serves as the key solvent in the **Shell DGA process**, where it provides efficient absorption of acid gases while minimizing corrosion and degradation compared to traditional amines like MEA or DEA.
- **Advantages:** High solubility, low volatility, and better resistance to oxidative degradation allow DGA to operate at higher acid gas loadings and lower circulation rates.

### 2. Chemical Intermediate

- **Surfactant and Detergent Production:** Used as a building block for manufacturing **ethoxylated amines, alkanolamides, and surfactants** in cleaning formulations.
- **Resins and Polymers:** Acts as a reactive intermediate in producing **polyurethane catalysts, epoxy curing agents, and polyamide resins**.
- **Corrosion Inhibitors:** Forms part of the chemistry for **metalworking fluids, antirust coatings, and pipeline corrosion inhibitors**.

### 3. Gas and Power Generation

- **Amine-Based Absorption Systems:** In power plants and gas turbines, DGA is employed to control **acidic emissions and capture CO<sub>2</sub>** from flue gases.
- **Carbon Capture Applications:** Its high chemical stability and absorption efficiency make it suitable for use in **carbon capture and storage (CCS)** systems.

### 4. Industrial Cleaning and Metal Treatment

- **Neutralizing and Buffering Agent:** Used in **industrial cleaning products, boiler water treatment, and metal finishing formulations** to control pH.
- **Metal Cleaning Solutions:** Its solubility in water and ability to **chelate** metal ions make it effective for **degreasing and descaling formulations**.

### 5. Agricultural and Specialty Chemical Uses

- **Pesticide Formulations:** Serves as a **solvent and pH adjuster** in agrochemical formulations.
- **Adjuvant Chemistry:** Can be used in the synthesis of additives that enhance the performance of herbicides and fertilizers.

If interested, please call or text:

**Brian Svrusis**  
Solvent Systems International  
70 King St.  
Elk Grove Village, IL 60007  
847-323-6718 call or text  
Click here for: [Surplus Inventory](#)  
[Solvent-Systems.com](http://Solvent-Systems.com)



Enriching lives through innovation

## Gas Treating Sample Results

The following Company received copies of this report:

Est. Date Collected: 7/3/2025

Huntsman provides detailed sample results, Excel files, and compressed data files to a prearranged list of contacts. This list is maintained on a secure Huntsman system as we value privacy and data control. Please review the e-mail distribution list to which this report is attached for all parties that have received the data. If this list needs updating, please inform your Technical Service Representative or Account Manager.

Please contact your Technical Service Representative Brad Atkinson at +1 346-382-6838 to discuss these results.

[Brad\\_Atkinson@Huntsman.com](mailto:Brad_Atkinson@Huntsman.com)

### *Huntsman Gas Treating Products and Services That Meet Your Needs:*

**DIGLYCOLAMINE® Agent (DGA® Agent)**

**JEFFTREAT® ULTRA Advanced H<sub>2</sub>S Selective Solvent**

**JEFFTREAT® family of Methyldiethanolamine (MDEA) Formulated Solvents**

**JEFFTREAT® AO-832 Oxygen Blocker**

**JEFFTREAT® AF-61 Antifoam**

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PHONE:

Sample(s) included in this report and additional comments:

20250710.07 LEAN DGA Agent LEAN DGA,07/03/25,K1 1am

This LEAN sample was evaluated with Huntsman guidelines for Refinery DGA® Agent systems, with the following results:

This sample displayed nil foaming tendency. The foam broke in 1 seconds.

The amine strength was acceptable. The water content was acceptable. The acid gas loadings were acceptable.

Heat stable salts were not a problem in this sample.

The Sample Recovery, Nitrogen Balance, and Amine Balance were all acceptable.

No problem was detected with soluble metals. No problems were found with the physical properties of this sample.

No problems were found with bulk contaminants.

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\*\* Items flagged with the double asterisk should be discussed with your technical service representative, Brad Atkinson.

Please contact your Technical Service Representative Brad Atkinson at +1 346-382-6838 to discuss these results.

7/16/2025 11:59:06 AM

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AMINE: <b>DGA Agent</b>		UNIT ID: <b>OP II</b>	Entered: <b>7/10/2025</b>
TYPE: <b>LEAN</b>		APPLICATION: <b>Refinery</b>	Reported: <b>FINAL 7/16/2025</b>
Other ID: <b>LEAN DGA,07/03/25,K1 1am</b>			
<b>BULK COMPOSITION, %w</b> <div> <div> Usable Amine <b>40.07 OK</b>  Water + <b>56.04 OK</b>  H2S + <b>0.03 OK</b>  CO2 + <b>0.95 OK</b> </div> <div> <b>Alternate Units</b>  15.8 gr/gal    0.0020 m/m    196 ppmv  0.72 scf/gal    + 0.0564 m/m  Total Loading = <b>0.0584 m/m OK</b> </div> </div> <div> <b>Neutralization Calculations</b>    %w Amine basis  <div> Strong Acid Anions + <b>0.21 OK</b>  nFDGA + <b>0.38 OK</b>  Strong Bases + <b>0.00</b>  Bound Amine + <b>0.39 OK</b>  BHEEU + <b>2.96 OK</b>  EG + <b>0.17 OK</b>  TEG + <b>&lt;0.10 OK</b> </div> <div> Speciated Acids: <b>0.47</b>  Titrated Acids: <b>0.33</b> } avg <b>0.40 OK</b>  Strong Bases: - <b>0.00</b>  Acids - Bases: = <b>0.39 OK</b>  % Neutralization = <b>1</b> </div> </div> <div> SAMPLE RECOVERY = <b>101.20 OK</b>  Additional Comments:  This solvent contains <b>&lt;50 ppmw ammonia. OK</b> </div>			
<b>NITROGEN BALANCE</b> %w as Amine Total N: <b>43.6</b> in Titr. Am: - <b>40.1</b> in Anions: - <b>0.0</b> in Bound Am: - <b>0.4</b> in BHEEU: - <b>2.6</b> in formyl Am: - <b>0.3</b> Excess N: = <b>0.2 OK</b>		<b>AMINE BALANCE</b> %w as Amine Titrated: <b>40.1</b> Bound: + <b>0.4</b> Identified: - <b>39.8</b> Excess Am: = <b>0.7 OK</b>	
<b>SOLUBLE METALS</b> ppmw Iron <b>2 OK</b> Chromium <b>&lt;1 OK</b> Nickel <b>&lt;1 OK</b> Manganese <b>&lt;0.5 OK</b> Sodium <b>10</b> Potassium <b>&lt;5</b> Calcium <b>&lt;1 OK</b> Silicon <b>&lt;10</b>		<b>ANION SPECIATION</b> <div> ORGANIC    ppmw  Acetate <b>119 OK</b>  Formate + <b>1656 OK</b>  Glycolate + <b>&lt;100 OK</b>  Lactate + <b>&lt;100 OK</b>  Oxalate + <b>&lt;100 OK</b>  Propionate + <b>&lt;100 OK</b>  Total* Org. = <b>1775 OK</b> </div> <div> INORGANIC    ppmw  Chloride <b>trace OK</b>  Sulfite + <b>&lt;200 OK</b>  Sulfate + <b>trace OK</b>  Thiosulfate + <b>trace OK</b>  Thiocyanate + <b>254 OK</b>  Total* Inorg. = <b>320 OK</b> </div> <div> Total* Speciated Anions = <b>2096</b>    * Totals include traces </div>	
<b>FOAMING TENDENCY</b> Rate Volume, cc    Breaktime, s 500 <b>62 nil</b> <b>1 OK</b>		<b>PHYSICAL PROPERTIES</b> COLOR: <b>Yellow/Clear/None/1 OK</b> For 40.1 %w amine    Expected    Actual DENSITY g/ml 60°F:    1.0447 <b>1.0595 OK</b> VISCOSITY cS 100°F:    2.69 <b>3.28 OK</b> Oil and Grease (O.G) mg/L: <b>7 OK</b> Total Suspended Solids (TSS) mg/L: <b>8 OK</b>	

Gas Treating Analysis Summary: Overall Results

DGA Agent			LEAN				Unit ID:				OP II				Foam Test				Transition Metals				Alkali Metals			
SAMPLE #	Date	Usable	Water	CO2	H2S	Anions		Bound	BHEEU	nFDGA	EG	Total	TSS	O.G	Foam	Br.T	Sample	Visc.	Fe	Cr	Ni	Mn	Na	K	Ca	Si
		%w				%w	%w as amine																			
20250710.07	03-Jul-25	40.1	56.0	0.056	0.002	0.40	0.39	3.0	0.38	0.2	101.2	<10	<10	nil	1		Yellow/Clear/N	3.28	2	<1	<1	<0.5	10	<5	<1	<10
20250410.10	03-Apr-25	43.1	51.4	0.019	0.003	0.37	0.37	2.9	0.365	0.2	98.8	18	<10	nil	1		Yellow/Clear/N	3.68	<1	<1	<1	<0.5	10	<5	1	<10
20250110.05	02-Jan-25	46.9	47.2	0.049	0.001	0.53	0.52	3.2	0.647	0.2	100.0	<10	37	nil	4		Yellow/Clear/N	4.72	<1	<1	<1	<0.5	5	<5	<1	<10
20241011.05	03-Oct-24	50.0	43.4	0.071	0.002	0.52	0.51	3.2	0.741	0.2	99.9	<10	<10	nil	2		Yellow/Clear/N	5.87	<1	<1	<1	<0.5	10	<5	1	<10
20240829.08	04-Jul-24	48.5	45.8	0.040	0.000	0.65	0.63	5.3	0.764	0.3	102.4	<10	12	nil	3		Yellow/Clear/N	4.88	1	<1	<1	<0.5	25	<5	3	<10
20240424.01	16-Apr-24	42.6	52.1	0.006	0.001	0.74	0.74	2.7	0.565	0.3	99.5	<10	<10	nil	4		YELLOW/CLE	3.79	<1	<1	<1	<0.5	15	<5	1	<10
20240110.05	04-Jan-24	50.4	37.8	0.068	0.002	0.38	0.38	8.3	0.902	0.3	99.8	14	756	nil	1		Green black/Cl	7.45	3	<1	<1	0.6	1	<5	1	<10
20231011.16	05-Oct-23	58.0	32.5	0.014	0.000	0.32	0.32	7.2	0.69	0.3	99.5	98	2000	nil	1		BROWN/CLE	8.41	33	<1	<1	0.7	5	<5	5	<10
20230809.11	11-May-23	51.1	36.4	0.002	0.000	0.77	0.77	11.3	1.854	0.4	102.3	12	<10	nil	2		GREEN BLAC	7.41	5	<1	<1	0.6	1	<5	2	<10
20230712.14	06-Jul-23	51.6	33.3	0.025	0.000	0.34	0.34	13.9	1.129	0.4	101.5	14	<10	nil	1		GREEN BLAC	8.57	4	<1	<1	0.6	1	<5	<1	<10
20230420.14	18-Apr-23	49.5	45.4	0.037	0.000	0.60	0.60	3.0	0.958	0.3	100.9	10	<10	nil	1		YELLOW/CLE	5.08	<1	<1	<1	<0.5	1	<5	<1	<10
20230222.06	22-Feb-23	52.2	39.3	0.030	0.000	0.58	0.57	6.9	1.097	0.3	101.4	14	<10	nil	2		YELLOW/CLE	6.46	2	<1	<1	<0.5	10	<5	<1	<10
20221012.03	06-Oct-22	53.0	40.4	0.039	0.000	0.86	0.86	4.7	1.776	0.5	102.6	14	<10	nil	3		YELLOW/CLE	6.38	3	<1	<1	<0.5	5	<5	2	<10
20220810.04	09-Aug-22	48.5	44.2	0.035	0.000	1.01	1.01	4.4	1.538	0.4	101.2	60	<10	nil	1		YELLOW/CLE	5.18	2	<1	<1	0.5	5	<5	1	<10
20220712.11	07-Jul-22	47.1	47.8	0.028	0.000	1.12	1.12	3.5	1.343	0.3	102.2	352	55	nil	4		GREEN BLAC	4.63	25	<1	<1	0.5	5	<5	2	<10
20220112.14	07-Jan-22	49.7	43.8	0.032	0.000	0.83	0.83	5.4	1.261	0.3	102.3	182	34	nil	4		GRN BLK/CLE	5.74	6	<1	<1	<0.5	5	<5	3	<10
20211013.03	07-Oct-21	49.4	43.1	0.033	0.000	0.86	0.86	4.5	1.192	0.3	100.4	110	<10	nil	13		LT YELLOW/C	5.21	<1	<1	<1	<0.5	5	<5	4	<10
20210728.07	22-Jul-21	51.8	40.6	0.044	0.000	0.35	0.34	4.2	0.384	<0.1	98.5	158	409	nil	1		YELLOW/CLE	5.83	3	<1	<1	<0.5	5	<5	1	<10
20210721.06	20-Jul-21	49.9	42.9	0.038	0.000	0.29	0.29	3.2	0.269	0.2	97.7	74	301	nil	17		AMBER/SLT H	5.02	2	<1	<1	<0.5	1	<5	<1	<10
20210707.10	01-Jul-21	51.6	47.1	0.037	0.000	0.32	0.32	3.2	0.338	0.2	103.7	86	217	nil	6		COLORLESS/	5.48	1	<1	<1	<0.5	1	<5	1	<10
20210707.09	01-Jul-21	51.7	46.9	0.037	0.000	0.32	0.32	3.4	0.36	0.2	103.9	68	167	nil	9		COLORLESS/	5.48	1	<1	<1	<0.5	1	<5	1	<10
20210512.02	10-May-21	45.4	50.8	0.044	0.000	0.43	0.43	2.8	0.403	0.2	101.2	74	24	nil	1		DK GREEN/C	4.18	2	<1	<1	<0.5	5	<5	<1	<10
20210407.05	01-Apr-21	49.2	48.8	0.044	0.000	0.13	0.12	2.0	0.107	0.1	101.3	222	84	nil	300		BLACK/OPAQ	4.63	4	<1	<1	<0.5	5	<5	2	<10
20210113.05	07-Jan-21	51.4	45.9	0.042	0.000	0.06	0.06	2.7	0.057	0.2	101.3	70	46	nil	7		LT YELLOWG	5.25	1	<1	<1	<0.5	5	<5	3	<10
20200708.05	02-Jul-20	52.0	43.9	0.055	0.000	0.06	0.05	2.4	0.06	0.2	99.9	38	16	nil	4		LT YELLOW/C	5.45	1	<1	<1	<0.5	5	<5	2	<10
20200107.10	02-Jan-20	54.1	40.3	0.037	0.000	0.06	0.06	3.3	0.05	0.3	99.0	96	75	nil	12		GREEN/HAZY	6.03	8	<1	<1	<0.5	10	<5	2	<10
20191031.07	23-Oct-19	55.6	40.1	0.043	0.001	0.06	0.06	1.4	0.12	0.4	98.7		26	NT			YELLOWGRE	6.00	3	<1	<1	<0.5	5	<5	<1	<10
20191010.05	03-Oct-19	53.9	39.5	0.028	0.000	0.12	0.12	3.8	0.22	0.5	98.8	34	45	nil	2		DK YELLOWG	6.17	3	<1	<1	<0.5	10	<5	1	<10
20190815.04	08-Aug-19	59.6	26.8	0.047	0.000	0.37	0.37	9.4	1.66	0.9	100.3		61	NT			LT GREY/SLT	11.60	7	<1	<1	2.3	10	5	3	<10
20190715.07	10-Jul-19	56.2	32.9	0.045	0.000	0.21	0.20	7.0	0.56	0.5	98.7		36	NT			DK GREY GR	8.57	9	<1	<1	0.8	10	5	2	<10
20190715.06	04-Jul-19	54.9	40.0	0.033	0.000	0.24	0.24	5.7	0.49	0.5	102.7	140	45	nil	8		DK GREY GR	7.14	9	<1	<1	1.1	10	<5	2	<10

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Sample # shows login date: XXYYZZ.aa where XX = Year YY = Month ZZ = Day  
Blank or Zero Value indicates test was not performed

Gas Treating Analysis Summary: Heat Stable Salts Detail

DGA Agent		LEAN				Unit ID:				OP II				Total ppm anions by Type (includes traces)		Anions as %w amine		% Neutr- alized		HSS as HSAS as % OF Amine	
SAMPLE #	Density g/ml	Ac	For	Gly	Lac	Ox	Prop	Cl	SO3	SO4	S2O3	SCN	Organic	Inorganic	All	Total Speciated	Total Titrated			Amine	% OF Amine
20250710.07	1.0595	<100	1656	<100	<100	<100	<500	<20	<200	<100	<100	254	1775	320	2096	0.47	0.33	1	1.0	1.0	1.0
20250410.10	1.0634	<100	1427	<100	<100	<100	<500	<20	<200	<100	<100	276	1438	372	1811	0.40	0.34	1	0.9	0.9	0.9
20250110.05	1.0702	<100	1970	<100	<100	<100	<500	<20	<200	<100	113	533	1997	653	2650	0.58	0.47	0	1.1	1.1	1.1
20241011.05	1.0797	<100	1904	<100	<100	<100	<500	<20	<200	<100	352	504	1928	880	2808	0.61	0.42	1	1.0	1.0	1.0
20240829.08	1.0693	<100	2452	<100	<100	<100	<500	<20	<200	<100	172	559	2467	743	3210	0.71	0.58	2	1.3	1.3	1.3
20240424.01	1.0626	<100	2608	<100	<100	<100	<500	<20	<200	<100	264	500	2637	785	3422	0.76	0.73	1	1.7	1.7	1.7
20240110.05	1.0870	<100	1342	<100	<100	<100	<500	<20	<200	<100	106	448	1353	556	1909	0.42	0.35	0	0.8	0.8	0.8
20231011.16	1.0742	<100	1387	<100	<100	<100	<500	<20	<200	<100	<100	127	1422	170	1592	0.36	0.28	1	0.6	0.5	0.5
20230809.11	1.0811	<100	3066	<100	<100	<100	<500	<20	<200	<100	<100	432	3096	432	3528	0.80	0.74	0	1.5	1.5	1.5
20230712.14	1.0857	<100	1822	<100	<100	<100	<500	<20	<200	<100	<100	436	1847	459	2306	0.51	0.16	0	0.7	0.7	0.7
20230420.14	1.0700	<100	2568	<100	<100	<100	<500	<20	<200	<100	<100	776	2604	838	3442	0.76	0.44	0	1.2	1.2	1.2
20230222.06	1.0764	<100	1982	<100	<100	<100	<500	<20	<200	<100	<100	1213	2014	1246	3260	0.69	0.46	1	1.1	1.1	1.1
20221012.03	1.0752	<100	3332	<100	<100	<100	<500	<20	<200	<100	<100	884	3368	900	4268	0.95	0.78	0	1.6	1.6	1.6
20220810.04	1.0717	<100	3599	<100	<100	<100	<500	<20	<200	<100	<100	1343	3629	1385	5014	1.10	0.92	0	2.1	2.1	2.1
20220712.11	1.0675	<100	3907	<100	<100	<100	<500	<20	<200	<100	<100	1325	3938	1433	5370	1.18	1.07	0	2.4	2.4	2.4
20220112.14	1.0741	<100	3202	<100	<100	<100	<500	<20	<200	<100	<100	935	3233	1002	4234	0.93	0.73	0	1.7	1.7	1.7
20211013.03	1.0722	<100	3157	<100	<100	<100	<500	<20	<200	<100	<100	1284	3180	1311	4491	0.98	0.74	0	1.7	1.7	1.7
20210728.07	1.0740	<100	954	<100	<100	<100	<500	<20	<200	<100	<100	631	967	658	1625	0.34	0.35	1	0.7	0.7	0.7
20210721.06	1.0689	<100	873	<100	<100	<100	<500	<20	<200	<100	<100	542	889	556	1445	0.31	0.28	0	0.6	0.6	0.6
20210707.10	1.0706	<100	1094	<100	<100	<100	<500	<20	<200	<100	<100	533	1112	559	1671	0.36	0.29	0	0.6	0.6	0.6
20210707.09	1.0704	<100	1057	<100	<100	<100	<500	<20	<200	<100	<100	519	1074	544	1619	0.35	0.29	0	0.6	0.6	0.6
20210512.02	1.0649	<100	1545	<100	<100	<100	<500	<20	<200	<100	<100	485	1561	512	2073	0.46	0.40	1	0.9	0.9	0.9
20210407.05	1.0667	<100	382	<100	<100	<100	<500	<20	<200	<100	<100	145	399	170	569	0.12	0.13	2	0.3	0.3	0.3
20210113.05	1.0697	<100	253	<100	<100	<100	<500	<20	<200	<100	<100	196	268	241	509	0.11	0.01	4	0.1	0.1	0.1
20200708.05	1.0715	<100	179	<100	<100	<100	<500	<20	<200	<100	<100	165	186	219	405	0.08	0.03	4	0.1	0.1	0.1
20200107.10	1.0711	<100	116	<100	<100	<100	<500	<20	<200	<100	<100	181	133	287	420	0.08	0.04	7	0.1	0.1	0.1
20191031.07	1.0709	<100	241	<100	<100	<100	<500	<20	<200	<100	<100	<100	251	181	432	0.09	0.03	4	0.1	0.1	0.1
20191010.05	1.0721	<100	516	<100	<100	<100	<500	<20	<200	<100	128	302	527	432	959	0.20	0.04	4	0.2	0.2	0.2
20190815.04	1.0919	<100	1260	<100	<100	<100	<500	<20	<200	<100	<100	1403	1266	1495	2761	0.57	0.18	2	0.6	0.6	0.6
20190715.07	1.0844	<100	673	<100	<100	<100	<500	<20	<200	<100	<100	1147	683	1211	1894	0.38	0.04	3	0.4	0.4	0.4
20190715.06	1.0770	<100	827	<100	<100	<100	<500	<20	<200	<100	<100	1018	838	1049	1887	0.39	0.10	2	0.4	0.4	0.4

Reporting limits

**HUNTSMAN CORPORATION BUSINESS CONFIDENTIAL**

Organic Anions: Ac=Acetate; For=Formate; Gly=Glycolate; Lac=Lactate; Ox=Oxalate; Prop=Propionate;

Prop = 500 ppmw; SO3 = 200 ppmw; Cl = 20 ppmw

All others = 100 ppmw

Inorganic Anions: SO3=Sulfite; SO4=Sulfate; S2O3=Thiosulfate; SCN=Thiocyanate; Cl=Chloride

# SAFETY DATA SHEET

## DIGLYCOLAMINE® AGENT

### Section 1. Identification

**GHS product identifier** : DIGLYCOLAMINE® AGENT  
**Product code** : 00033118  
**Other means of identification** : Not available.  
**Product type** : Liquid.  
**Material uses** : Gas treating, Welding and cutting of metals.  
**Supplier's details** : Huntsman International LLC  
P.O. Box 4980  
The Woodlands, TX 77387  
  
Technical Information: (281) 719-7780  
  
**e-mail address of person responsible for this SDS** : MSDS@huntsman.com  
  
**Emergency telephone number (24h/7day)** : Chemtrec: (800) 424-9300 or (703) 527-3887

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
  
**Classification of the substance or mixture** : SKIN CORROSION/IRRITATION - Category 1B  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [central nervous system (CNS) and kidneys] - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) [central nervous system (CNS), kidneys and liver] - Category 2

#### GHS label elements

##### **Hazard pictograms**



##### **Signal word**

: Danger

##### **Hazard statements**

: Causes severe skin burns and eye damage.  
May cause damage to organs. (central nervous system (CNS), kidneys)  
May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS), kidneys, liver)

##### **Precautionary statements**

: Wear protective gloves: > 8 hours (breakthrough time): nitrile rubber. Wear eye or face protection: Recommended: Tightly fitting safety goggles. Wear protective clothing. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Get medical attention if you feel unwell. IF exposed or if you feel unwell: Call a POISON CENTER or physician. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately



## Section 2. Hazards identification

call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	%	CAS number
2-(2-Aminoethoxy)ethanol	60 - 100	929-06-6
N-ethylaminoethoxyethanol	1 - 3	106007-99-2
Diethylene glycol	0.1 - 1	111-46-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or



## Section 4. First aid measures

waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Causes severe burns.
- Ingestion** : May cause burns to mouth, throat and stomach.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

- Flash point** : Closed cup: 127°C (260.6°F)
- Flammable limits** : Lower: 2.6%  
Upper: 11.7%

#### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

## Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
Carbon monoxide  
nitrogen oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Remark** : Not explosive

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

- Methods and materials for containment and cleaning up** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** :

## Section 7. Handling and storage

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: Tightly fitting safety goggles

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): nitrile rubber

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Section 8. Exposure controls/personal protection

- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Respiratory protection.
- Thermal hazards** : Not available.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Colorless.
- Odor** : Amine-like.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/Freezing point** : -12.5°C (9.5°F)
- Boiling/condensation point** : 222.5 to 223.8°C (432.5 to 434.8°F)
- Flash point** : Closed cup: 127°C (260.6°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 2.6%  
Upper: 11.7%
- Vapor pressure** : Not available.
- Vapor density** : 3.6 [Air = 1]
- Relative density** : 1.06
- Solubility in water** : miscible
- Partition coefficient: n-octanol/water** : -1.89
- Auto-ignition temperature** : 370°C (698°F)
- Decomposition temperature** : Not available.
- Explosive properties** : Not explosive
- Oxidizing properties** : None.
- Viscosity** : Dynamic (room temperature): 48.688 mPa·s (48.688 cP)

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.

## Section 10. Stability and reactivity

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
2-(2-Aminoethoxy)ethanol	OECD 403 Acute Inhalation Toxicity	LC50 Inhalation Vapor	Rat - Male, Female	>8.7 mg/m <sup>3</sup>
	OECD 402 Acute Dermal Toxicity	LD50 Dermal	Rabbit - Male, Female	>3000 mg/kg
	OECD 401 Acute Oral Toxicity	LD50 Oral	Rat - Male, Female	3400 mg/kg

#### Conclusion/Summary :

Diethylene glycol

The animal toxicity data for ethylene glycol (EG) and diethylene glycol (DEG) does not reflect the human toxicity of these substances. EG or DEG can be harmful or fatal if swallowed. The lower bound of human toxicity for these substances is estimated to be 200 mg/kg.

#### Irritation/Corrosion

Product/ingredient name	Test	Species	Result
2-(2-Aminoethoxy)ethanol	OECD 404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Corrosive
	No official guidelines	Rabbit	Eyes - Corrosive

#### Conclusion/Summary

**Skin** : Corrosive to the skin.

**Eyes** : Corrosive to eyes.

#### Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result
2-(2-Aminoethoxy)ethanol	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing

#### Mutagenicity

Product/ingredient name	Test	Result
2-(2-Aminoethoxy)ethanol	Experiment: In vitro Subject: Bacteria Metabolic activation: +/-	Negative
	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic	Negative
	Experiment: In vitro Subject: Mammalian-Animal	Negative
	Experiment: In vivo Subject: Mammalian-Animal	Negative

**Conclusion/Summary** : No mutagenic effect.

#### Carcinogenicity

## Section 11. Toxicological information

Product/ingredient name	Test	Species	Dose	Exposure	Result/Result type
Diethylene glycol	No official guidelines	Rat - Male, Female	1160 to 1210 mg/kg	108 weeks; 7 days per week	Negative - Oral - NOAEL

**Conclusion/Summary** : In accordance with column 2 of Annex VII - X of Regulation (EC) No 1907/2006, the test for this property of the substance does not need to be conducted.

### Reproductive toxicity

Product/ingredient name	Test	Species	Maternal toxicity	Fertility	Developmental effects
2-(2-Aminoethoxy)ethanol	OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	Rat - Male, Female	Negative	Negative	Negative
	OECD 411 Subchronic Dermal Toxicity: 90-day Study	Rat - Male, Female	Negative	-	-

**Conclusion/Summary** :  
Diethylene glycol No known significant effects or critical hazards.

### Teratogenicity

Product/ingredient name	Test	Species	Result/Result type
2-(2-Aminoethoxy)ethanol	OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	Rat - Male, Female	Negative - Inhalation

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Diethylene glycol	Category 2	Not determined	central nervous system (CNS) and kidneys

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Diethylene glycol	Category 2	Not determined	central nervous system (CNS), kidneys and liver

### Aspiration hazard

Not available.



## Section 11. Toxicological information

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Causes severe burns.
- Ingestion** : May cause burns to mouth, throat and stomach.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

### Potential chronic health effects

Product/ingredient name	Test	Endpoint	Species	Result
2-(2-Aminoethoxy)ethanol	OECD 411 Subchronic Dermal Toxicity: 90-day Study	Sub-chronic NOAEL Dermal	Rat - Male, Female	>175 mg/kg/d
	OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	Sub-chronic NOEC Inhalation Vapor	Rat - Male, Female	4 mg/m <sup>3</sup>

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : No known significant effects or critical hazards.

## Section 11. Toxicological information

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

**Other information** : Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Test	Endpoint	Exposure	Species	Result
2-(2-Aminoethoxy)ethanol	DIN DIN 38412 Part 8	Acute EC50	17 hours Static	Bacteria	110 mg/l
	EU EC C.2 Acute Toxicity for Daphnia	Acute EC50	48 hours Static	Daphnia	189 mg/l
	DIN DIN 38412 part 9	Acute ErC50 (growth rate)	72 hours Static	Algae	202 mg/l
	DIN DIN 38412 Part 15	Acute LC50	96 hours Static	Fish	>681 mg/l
	DIN DIN 38412 Part 8	Chronic EC10	17 hours Static	Bacteria	28 mg/l
	DIN DIN 38412 part 9	Chronic NOECr	72 hours Static	Algae	62.5 mg/l

**Conclusion/Summary** : Diethylene glycol Not toxic or harmful to aquatic organisms.

### Persistence and degradability

Product/ingredient name	Test	Period	Result
2-(2-Aminoethoxy)ethanol	OECD 301A Ready Biodegradability - DOC Die-Away Test	17 days	90 to 100 %
	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	28 days	84 %

**Conclusion/Summary** : Readily biodegradable

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-(2-Aminoethoxy)ethanol	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
2-(2-Aminoethoxy)ethanol	-1.89	-	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : 1 to 1.061

## Section 12. Ecological information

**Other adverse effects** : No known significant effects or critical hazards.

### Other ecological information

**BOD5** : Not determined.

**COD** : Not determined.

**TOC** : Not determined.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14. Transport information




### Proper shipping name

**DOT** : 2-(2-Aminoethoxy)ethanol


**TDG** : 2-(2-Aminoethoxy)ethanol

**IMDG** : 2-(2-Aminoethoxy)ethanol

**IATA** : 2-(2-Aminoethoxy)ethanol

Regulatory information	UN number	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	UN3055	8	III		-
<b>TDG Classification</b>	UN3055	8	III		-
<b>IMDG Classification</b>	UN3055	8	III		<b>Emergency schedules (EmS)</b> F-A S-B

## Section 14. Transport information

<b>IATA Classification</b>	UN3055	8	III		<b><u>Passenger and Cargo Aircraft</u></b> Quantity limitation: 5 L Packaging instructions: 852 <b><u>Cargo Aircraft Only</u></b> Quantity limitation: 60 L Packaging instructions: 856
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PG\* : Packing group

## Section 15. Regulatory information

### Safety, health and environmental regulations specific for the product

#### United States Regulations

**TSCA 8(b) inventory** : All components are listed or exempted.

**TSCA 5(a)2 final significant new use rule (SNUR)** : No ingredients listed.

**TSCA 5(e) substance consent order** : No ingredients listed.

**TSCA 12(b) export notification** : No ingredients listed.

**SARA 311/312** : Immediate (acute) health hazard  
Delayed (chronic) health hazard

**Clean Air Act - Ozone Depleting Substances (ODS)** : This product does not contain nor is it manufactured with ozone depleting substances.

**SARA 313** : No ingredients listed.

	<u><b>Ingredient name</b></u>	<u><b>%</b></u>	<u><b>Section 304 CERCLA Hazardous Substance</b></u>	<u><b>CERCLA Reportable Quantity (Lbs)</b></u>	<u><b>Product Reportable Quantity (Lbs)</b></u>
<b>CERCLA Hazardous substances</b>	: Ethylene glycol	0.2	Listed	5000	2500000

#### State regulations

**PENNSYLVANIA - RTK** : Diethylene glycol

**California Prop 65** : This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

## Section 15. Regulatory information

### Canadian regulations

**CEPA DSL** : All components are listed or exempted.

**WHMIS Classes** : Class E: Corrosive material

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### Brazil Regulations

**Classification system used** : Norma ABNT-NBR 14725-2:2012

### International lists

: **Australia inventory (AICS)**: All components are listed or exempted.  
**China inventory (IECSC)**: All components are listed or exempted.  
**Japan inventory**: All components are listed or exempted.  
**Korea inventory**: All components are listed or exempted.  
**Malaysia Inventory (EHS Register)**: Not determined.  
**New Zealand Inventory of Chemicals (NZIoC)**: All components are listed or exempted.  
**Philippines inventory (PICCS)**: All components are listed or exempted.  
**Taiwan inventory (CSNN)**: Not determined.

## Section 16. Other information

**Hazardous Material Information System (U.S.A.)** :

Health	3
Flammability	1
Physical hazards	0
Personal protection	

The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

**National Fire Protection Association (U.S.A.)** :



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**Date of printing** : 5/30/2014.

## Section 16. Other information

**Date of issue** : 5/30/2014.

**Date of previous issue** : 3/3/2014.

**Version** : 2

 Indicates information that has changed from previously issued version.

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# ANALYTICAL REPORT

**PREPARED FOR**

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## JOB DESCRIPTION

Spent Diglycolamine

## JOB NUMBER

860-111617-1

# Eurofins Houston

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



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## Definitions/Glossary

Project/Site: Spent  
Diglycolamine

Job ID: 860-111617-1

### Qualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

#### Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

#### General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Project: Spent Diglycolamine

Job ID: 860-111617-1

**Job ID: 860-111617-1**

**Eurofins Houston**

## Job Narrative 860-111617-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

### Receipt

The sample was received on 9/15/2025 1:00 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.1°C.

### GC/MS VOA

Method 8260C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: Spent Diglycolamine (860-111617-1). The reporting limits (RLs) have been adjusted proportionately. pH-14

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### GC/MS Semi VOA

Method 8270E\_QQQ: The continuing calibration verification (CCV) associated with batch 860-264162 recovered above the upper control limit for 3 & 4 Methylphenol and Nitrobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is:(CCVIS 860-264162/2).

Method 8270E\_QQQ: The large number of analytes included in the continuing calibration verification (CCV) gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes of interest are outside the method-defined %D criteria.

Method 8270E\_QQQ: The continuing calibration verification (CCV) associated with batch 860-264437 recovered above the upper control limit for 2,4-Dinitrotoluene, Bis(2-ethylhexyl) phthalate, Butyl benzyl phthalate and Di-n-octyl phthalate. The associated sample is:(CCVIS 860-264437/2).

Method 8270E\_QQQ: Surrogate recovery for the following sample was outside control limits: Spent Diglycolamine (860-111617-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was performed.

Method 8270E\_QQQ: The following sample was re-prepared outside of preparation holding time due to QC failed in the first run: Spent Diglycolamine (860-111617-1).

Method 8270E\_QQQ: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 860-264432 and analytical batch 860-264437 recovered outside control limits for the following analyte(s): 3,3'-Dichlorobenzidine, 4-Chloroaniline, Benzidine and Pyridine. 3,3'-Dichlorobenzidine, 4-Chloroaniline, Benzidine and Pyridine have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270E\_QQQ: The laboratory control sample (LCS) for preparation batch 860-263589 and analytical batch 860-263528 recovered outside control limits for multiple Analytes. The associated sample(s) was re-prepared and/or re-analyzed outside holding time.

Method 8270E\_QQQ: The continuing calibration verification (CCV) associated with batch 860-263528 recovered above the upper control limit for 2,6-Dinitrotoluene, 2-Chloronaphthalene, Butyl benzyl phthalate, Dimethyl phthalate, Bis(2-ethylhexyl) phthalate and Di-n-octyl phthalate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is:(CCVIS 860-263528/2).

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## Case Narrative

Project: Spent Diglycolamine

Job ID: 860-111617-1

### Job ID: 860-111617-1 (Continued)

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No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Hydrocarbons

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Metals

Method 6010D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-262503 and analytical batch 860-262671 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 860-262503 and analytical batch 860-262671 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 7470A: Due to the sample matrix, the sample required a dilution. This was because it oxidized the potassium permanganate solution to completion prior to the require 15 minutes as stated by the digestion method.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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## Detection Summary

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

Client Sample ID: Spent Diglycolamine

Lab Sample ID: 860-111617-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.014		0.0050	0.0023	mg/L	5		8260C	Total/NA
Chloroform	0.0096		0.0050	0.0023	mg/L	5		8260C	Total/NA
Toluene	0.018		0.0050	0.0024	mg/L	5		8260C	Total/NA
2,4-Dimethylphenol	0.010		0.00058	0.00011	mg/L	1		8270E	Total/NA
2-Methylnaphthalene	0.0011		0.00058	0.00011	mg/L	1		8270E	Total/NA
2-Methylphenol	0.020		0.00058	0.00011	mg/L	1		8270E	Total/NA
3 & 4 Methylphenol	0.016		0.00058	0.000095	mg/L	1		8270E	Total/NA
Naphthalene	0.0016		0.00058	0.00012	mg/L	1		8270E	Total/NA
Selenium	0.23		0.15	0.046	mg/L	1		6010D	Total/NA
Sulfur	350		0.50	0.19	mg/L	1		6010D	Total/NA
Flashpoint	>180		1.0	1.0	Degrees F	1		1010B	Total/NA
pH	11.3	HF			SU	1		9040C	Total/NA
Temperature	19.9	HF			Degrees C	1		9040C	Total/NA
Corrosivity	11.3	HF			SU	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

Client Sample ID: Spent Diglycolamine

Lab Sample ID: 860-111617-1

Date Collected: 09/15/25 08:50

Matrix: Water

Date Received: 09/15/25 13:00

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		0.50	0.015	mg/L			09/20/25 17:52	5
<b>Benzene</b>	<b>0.014</b>		0.0050	0.0023	mg/L			09/20/25 17:52	5
Bromochloromethane	ND		0.0050	0.0029	mg/L			09/20/25 17:52	5
Bromoform	ND		0.025	0.0032	mg/L			09/20/25 17:52	5
1,3-Butadiene	ND		0.0050	0.0028	mg/L			09/20/25 17:52	5
2-Butanone	ND		0.25	0.041	mg/L			09/20/25 17:52	5
Carbon disulfide	ND		0.025	0.0083	mg/L			09/20/25 17:52	5
Carbon tetrachloride	ND		0.010	0.0045	mg/L			09/20/25 17:52	5
Chlorobenzene	ND		0.0050	0.0023	mg/L			09/20/25 17:52	5
Chloroethane	ND		0.050	0.0099	mg/L			09/20/25 17:52	5
<b>Chloroform</b>	<b>0.0096</b>		0.0050	0.0023	mg/L			09/20/25 17:52	5
Chloromethane	ND		0.050	0.010	mg/L			09/20/25 17:52	5
cis-1,2-Dichloroethene	ND		0.0050	0.0023	mg/L			09/20/25 17:52	5
cis-1,3-Dichloropropene	ND		0.025	0.0053	mg/L			09/20/25 17:52	5
Cumene	ND		0.0050	0.0030	mg/L			09/20/25 17:52	5
Dibromochloromethane	ND		0.025	0.0027	mg/L			09/20/25 17:52	5
1,1-Dichloroethane	ND		0.0050	0.0032	mg/L			09/20/25 17:52	5
1,2-Dichloroethane	ND		0.0050	0.0019	mg/L			09/20/25 17:52	5
1,1-Dichloroethene	ND		0.0050	0.0037	mg/L			09/20/25 17:52	5
1,2-Dichloropropane	ND		0.025	0.0028	mg/L			09/20/25 17:52	5
Ethylbenzene	ND		0.0050	0.0019	mg/L			09/20/25 17:52	5
Hexane	ND		0.025	0.0026	mg/L			09/20/25 17:52	5
2-Hexanone	ND		0.25	0.025	mg/L			09/20/25 17:52	5
Methylene Chloride	ND		0.025	0.0086	mg/L			09/20/25 17:52	5
4-Methyl-2-pentanone	ND		0.25	0.025	mg/L			09/20/25 17:52	5
m,p-Xylenes	ND		0.010	0.0062	mg/L			09/20/25 17:52	5
o-Xylene	ND		0.0050	0.0025	mg/L			09/20/25 17:52	5
Styrene	ND		0.0050	0.0031	mg/L			09/20/25 17:52	5
1,1,2,2-Tetrachloroethane	ND		0.0050	0.0024	mg/L			09/20/25 17:52	5
Tetrachloroethene	ND		0.0050	0.0033	mg/L			09/20/25 17:52	5
<b>Toluene</b>	<b>0.018</b>		0.0050	0.0024	mg/L			09/20/25 17:52	5
trans-1,2-Dichloroethene	ND		0.0050	0.0018	mg/L			09/20/25 17:52	5
trans-1,3-Dichloropropene	ND		0.025	0.0063	mg/L			09/20/25 17:52	5
1,1,1-Trichloroethane	ND		0.025	0.0029	mg/L			09/20/25 17:52	5
1,1,2-Trichloroethane	ND		0.0050	0.0021	mg/L			09/20/25 17:52	5
Trichloroethene	ND		0.025	0.0075	mg/L			09/20/25 17:52	5
Vinyl chloride	ND		0.010	0.0021	mg/L			09/20/25 17:52	5
Xylenes, Total	ND		0.010	0.0062	mg/L			09/20/25 17:52	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		74 - 124		09/20/25 17:52	5
Dibromofluoromethane (Surr)	100		75 - 131		09/20/25 17:52	5
1,2-Dichloroethane-d4 (Surr)	110		63 - 144		09/20/25 17:52	5
Toluene-d8 (Surr)	102		80 - 120		09/20/25 17:52	5

## Method: SW846 8270E - Semivolatile Organic Compounds (GC-MS/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.00058	0.00012	mg/L		09/22/25 13:50	09/24/25 22:48	1
1,2-Dichlorobenzene	ND	*	0.00058	0.00010	mg/L		09/22/25 13:50	09/24/25 22:48	1
1,3-Dichlorobenzene	ND		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1

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# Client Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

Client Sample ID: Spent Diglycolamine

Lab Sample ID: 860-111617-1

Date Collected: 09/15/25 08:50

Matrix: Water

Date Received: 09/15/25 13:00

## Method: SW846 8270E - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
2,4,5-Trichlorophenol	ND		0.00058	0.00043	mg/L		09/22/25 13:50	09/24/25 22:48	1
2,4,6-Trichlorophenol	ND		0.00058	0.00012	mg/L		09/22/25 13:50	09/24/25 22:48	1
2,4-Dichlorophenol	ND		0.00058	0.00013	mg/L		09/22/25 13:50	09/24/25 22:48	1
2,4-Dimethylphenol	0.010		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
2,4-Dinitrophenol	ND		0.0058	0.0014	mg/L		09/22/25 13:50	09/24/25 22:48	1
2,4-Dinitrotoluene	ND		0.0012	0.00052	mg/L		09/22/25 13:50	09/24/25 22:48	1
2,6-Dinitrotoluene	ND		0.00058	0.00028	mg/L		09/22/25 13:50	09/24/25 22:48	1
2-Chloronaphthalene	ND		0.00058	0.00012	mg/L		09/22/25 13:50	09/24/25 22:48	1
2-Chlorophenol	ND		0.00058	0.00010	mg/L		09/22/25 13:50	09/24/25 22:48	1
2-Methylnaphthalene	0.0011		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
2-Nitroaniline	ND		0.00058	0.00016	mg/L		09/22/25 13:50	09/24/25 22:48	1
2-Nitrophenol	ND		0.00058	0.00014	mg/L		09/22/25 13:50	09/24/25 22:48	1
2-Methylphenol	0.020		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
3 & 4 Methylphenol	0.016		0.00058	0.000095	mg/L		09/22/25 13:50	09/24/25 22:48	1
3,3'-Dichlorobenzidine	ND	*1	0.0012	0.00066	mg/L		09/22/25 13:50	09/24/25 22:48	1
3-Nitroaniline	ND		0.0012	0.00022	mg/L		09/22/25 13:50	09/24/25 22:48	1
4,6-Dinitro-2-methylphenol	ND		0.0029	0.0012	mg/L		09/22/25 13:50	09/24/25 22:48	1
4-Bromophenyl phenyl ether	ND		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
4-Chloroaniline	ND		0.00058	0.000089	mg/L		09/22/25 13:50	09/24/25 22:48	1
4-Chlorophenyl phenyl ether	ND		0.00058	0.000096	mg/L		09/22/25 13:50	09/24/25 22:48	1
4-Nitroaniline	ND		0.0012	0.00027	mg/L		09/22/25 13:50	09/24/25 22:48	1
4-Nitrophenol	ND	*1	0.0012	0.00068	mg/L		09/22/25 13:50	09/24/25 22:48	1
4-Chloro-3-methylphenol	ND		0.00058	0.00012	mg/L		09/22/25 13:50	09/24/25 22:48	1
Acenaphthene	ND		0.00058	0.00010	mg/L		09/22/25 13:50	09/24/25 22:48	1
Acenaphthylene	ND		0.00058	0.00013	mg/L		09/22/25 13:50	09/24/25 22:48	1
Anthracene	ND		0.00058	0.00010	mg/L		09/22/25 13:50	09/24/25 22:48	1
Benzidine	ND		0.0029	0.00055	mg/L		09/22/25 13:50	09/24/25 22:48	1
Benzo[a]anthracene	ND		0.00029	0.00013	mg/L		09/22/25 13:50	09/24/25 22:48	1
Benzo[a]pyrene	ND		0.00029	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
Benzo[b]fluoranthene	ND		0.00058	0.00013	mg/L		09/22/25 13:50	09/24/25 22:48	1
Benzo[g,h,i]perylene	ND		0.00058	0.000091	mg/L		09/22/25 13:50	09/24/25 22:48	1
Benzo[k]fluoranthene	ND		0.00058	0.00012	mg/L		09/22/25 13:50	09/24/25 22:48	1
Benzyl alcohol	ND	*-	0.0029	0.00023	mg/L		09/22/25 13:50	09/24/25 22:48	1
Butyl benzyl phthalate	ND		0.0012	0.00034	mg/L		09/22/25 13:50	09/24/25 22:48	1
Carbazole	ND		0.0012	0.00045	mg/L		09/22/25 13:50	09/24/25 22:48	1
Chrysene	ND		0.00058	0.000097	mg/L		09/22/25 13:50	09/24/25 22:48	1
Dibenz(a,h)anthracene	ND		0.00012	0.000086	mg/L		09/22/25 13:50	09/24/25 22:48	1
Dibenzofuran	ND		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
Diethyl phthalate	ND		0.0012	0.00019	mg/L		09/22/25 13:50	09/24/25 22:48	1
Dimethyl phthalate	ND		0.0012	0.00013	mg/L		09/22/25 13:50	09/24/25 22:48	1
Fluoranthene	ND		0.00058	0.00012	mg/L		09/22/25 13:50	09/24/25 22:48	1
Fluorene	ND		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
Hexachlorobenzene	ND		0.00058	0.00013	mg/L		09/22/25 13:50	09/24/25 22:48	1
Hexachlorobutadiene	ND		0.00058	0.00016	mg/L		09/22/25 13:50	09/24/25 22:48	1
Hexachlorocyclopentadiene	ND		0.0012	0.00018	mg/L		09/22/25 13:50	09/24/25 22:48	1
Hexachloroethane	ND		0.00058	0.00013	mg/L		09/22/25 13:50	09/24/25 22:48	1
Indeno[1,2,3-cd]pyrene	ND		0.00058	0.00010	mg/L		09/22/25 13:50	09/24/25 22:48	1
Isophorone	ND		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1

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# Client Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

Client Sample ID: Spent Diglycolamine

Lab Sample ID: 860-111617-1

Date Collected: 09/15/25 08:50

Matrix: Water

Date Received: 09/15/25 13:00

## Method: SW846 8270E - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		0.00058	0.00015	mg/L		09/22/25 13:50	09/24/25 22:48	1
N-Nitrosodimethylamine	ND		0.00058	0.00016	mg/L		09/22/25 13:50	09/24/25 22:48	1
N-Nitrosodiphenylamine	ND		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
<b>Naphthalene</b>	<b>0.0016</b>		0.00058	0.00012	mg/L		09/22/25 13:50	09/24/25 22:48	1
Nitrobenzene	ND		0.00058	0.00015	mg/L		09/22/25 13:50	09/24/25 22:48	1
Pentachlorophenol	ND		0.00058	0.00031	mg/L		09/22/25 13:50	09/24/25 22:48	1
Phenanthrene	ND		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
Phenol	ND		0.0012	0.00051	mg/L		09/22/25 13:50	09/24/25 22:48	1
Pyrene	ND		0.00058	0.00013	mg/L		09/22/25 13:50	09/24/25 22:48	1
Pyridine	ND	*- *1	0.0029	0.00084	mg/L		09/22/25 13:50	09/24/25 22:48	1
Bis(2-chloroethoxy)methane	ND		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
Bis(2-chloroethyl)ether	ND		0.00058	0.00011	mg/L		09/22/25 13:50	09/24/25 22:48	1
2,2'-oxybis(1-chloropropane)	ND	*-	0.0029	0.0019	mg/L		09/22/25 13:50	09/24/25 22:48	1
Bis(2-ethylhexyl) phthalate	ND		0.0012	0.00058	mg/L		09/22/25 13:50	09/24/25 22:48	1
Di-n-butyl phthalate	ND		0.0012	0.00067	mg/L		09/22/25 13:50	09/24/25 22:48	1
Di-n-octyl phthalate	ND		0.0012	0.00029	mg/L		09/22/25 13:50	09/24/25 22:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	1	S1-	35 - 130	09/22/25 13:50	09/24/25 22:48	1
2-Fluorobiphenyl (Surr)	68		43 - 130	09/22/25 13:50	09/24/25 22:48	1
2-Fluorophenol (Surr)	0	S1-	19 - 120	09/22/25 13:50	09/24/25 22:48	1
Nitrobenzene-d5 (Surr)	91		37 - 133	09/22/25 13:50	09/24/25 22:48	1
p-Terphenyl-d14 (Surr)	92		47 - 130	09/22/25 13:50	09/24/25 22:48	1
Phenol-d5 (Surr)	6	S1-	8 - 124	09/22/25 13:50	09/24/25 22:48	1

## Method: TCEQ TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12 Range Hydrocarbons	ND		4.7	0.84	mg/L		09/18/25 12:01	09/19/25 22:09	1
>C12-C28 Range Hydrocarbons	ND		4.7	0.82	mg/L		09/18/25 12:01	09/19/25 22:09	1
>C28-C35 Range Hydrocarbons	ND		4.7	0.82	mg/L		09/18/25 12:01	09/19/25 22:09	1
Total TPH 1005	ND		4.7	0.84	mg/L			09/19/25 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	84		70 - 130	09/18/25 12:01	09/19/25 22:09	1
o-Terphenyl (Surr)	85		70 - 130	09/18/25 12:01	09/19/25 22:09	1

## Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10	0.040	mg/L		09/17/25 09:29	09/17/25 19:07	1
Arsenic	ND		0.050	0.033	mg/L		09/17/25 09:29	09/17/25 19:07	1
Barium	ND		0.050	0.0063	mg/L		09/17/25 09:29	09/17/25 19:07	1
Beryllium	ND		0.020	0.0054	mg/L		09/17/25 09:29	09/17/25 19:07	1
Cadmium	ND		0.025	0.0042	mg/L		09/17/25 09:29	09/17/25 19:07	1
Chromium	ND		0.050	0.011	mg/L		09/17/25 09:29	09/17/25 19:07	1
Lead	ND		0.050	0.018	mg/L		09/17/25 09:29	09/17/25 19:07	1
Nickel	ND		0.050	0.0089	mg/L		09/17/25 09:29	09/17/25 19:07	1
<b>Selenium</b>	<b>0.23</b>		0.15	0.046	mg/L		09/17/25 09:29	09/17/25 19:07	1
Silver	ND		0.10	0.039	mg/L		09/17/25 09:29	09/17/25 19:07	1
<b>Sulfur</b>	<b>350</b>		0.50	0.19	mg/L		09/17/25 09:29	09/17/25 19:07	1
Vanadium	ND		0.10	0.026	mg/L		09/17/25 09:29	09/17/25 19:07	1

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# Client Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

**Client Sample ID: Spent Diglycolamine**

**Lab Sample ID: 860-111617-1**

Date Collected: 09/15/25 08:50

Matrix: Water

Date Received: 09/15/25 13:00

## Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium Pentoxide	ND		0.15	0.15	mg/L		09/17/25 09:29	09/17/25 19:07	1

## Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0010	0.00035	mg/L		09/19/25 09:48	09/19/25 16:47	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Flashpoint (SW846 1010B)</b>	<b>&gt;180</b>		1.0	1.0	Degrees F			09/18/25 14:33	1
Cyanide, Reactive (SW846 9012)	ND		0.025	0.013	mg/L		09/17/25 10:15	09/17/25 20:22	1
Sulfide, Reactive (SW846 9034)	ND		6.3	1.3	mg/L		09/17/25 17:44	09/18/25 10:30	1
<b>pH (SW846 9040C)</b>	<b>11.3</b>	<b>HF</b>			SU			09/23/25 15:28	1
<b>Temperature (SW846 9040C)</b>	<b>19.9</b>	<b>HF</b>			Degrees C			09/23/25 15:28	1
<b>Corrosivity (SW846 9040C)</b>	<b>11.3</b>	<b>HF</b>			SU			09/23/25 15:28	1

# Surrogate Summary

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (74-124)	DBFM (75-131)	DCA (63-144)	TOL (80-120)
860-111617-1	Spent Diglycolamine	96	100	110	102
880-62669-B-4 MS	Matrix Spike	97	98	109	98
880-62669-C-4 MSD	Matrix Spike Duplicate	96	96	111	98
LCS 860-263344/3	Lab Control Sample	99	96	108	99
LCSD 860-263344/4	Lab Control Sample Dup	96	98	106	98
MB 860-263344/10	Method Blank	97	99	112	102
<b>Surrogate Legend</b>					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					
DCA = 1,2-Dichloroethane-d4 (Surr)					
TOL = Toluene-d8 (Surr)					

## Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (35-130)	FBP (43-130)	2FP (19-120)	NBZ (37-133)	TPHd14 (47-130)	PHL (8-124)
860-111617-1	Spent Diglycolamine	1 S1-	68	0 S1-	91	92	6 S1-
LCS 860-263589/2-A	Lab Control Sample	73	65	64	66	60	62
LCS 860-264432/2-A	Lab Control Sample	91	93	91	89	89	92
LCSD 860-263589/3-A	Lab Control Sample Dup	76	75	72	74	68	70
LCSD 860-264432/3-A	Lab Control Sample Dup	96	97	95	90	93	97
MB 860-263589/1-A	Method Blank	66	71	68	76	63	64
MB 860-264432/1-A	Method Blank	70	100	98	91	89	97
<b>Surrogate Legend</b>							
TBP = 2,4,6-Tribromophenol (Surr)							
FBP = 2-Fluorobiphenyl (Surr)							
2FP = 2-Fluorophenol (Surr)							
NBZ = Nitrobenzene-d5 (Surr)							
TPHd14 = p-Terphenyl-d14 (Surr)							
PHL = Phenol-d5 (Surr)							

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO (70-130)	OTPH (70-130)
860-111617-1	Spent Diglycolamine	84	85
LCS 860-262887/2-A	Lab Control Sample	106	107
LCSD 860-262887/3-A	Lab Control Sample Dup	101	102
MB 860-262887/1-A	Method Blank	79	80
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane (Surr)			
OTPH = o-Terphenyl (Surr)			

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-263344/10

Matrix: Water

Analysis Batch: 263344

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		0.10	0.0031	mg/L			09/20/25 14:06	1
Benzene	ND		0.0010	0.00046	mg/L			09/20/25 14:06	1
Bromochloromethane	ND		0.0010	0.00058	mg/L			09/20/25 14:06	1
Bromoform	ND		0.0050	0.00063	mg/L			09/20/25 14:06	1
1,3-Butadiene	ND		0.0010	0.00057	mg/L			09/20/25 14:06	1
2-Butanone	ND		0.050	0.0083	mg/L			09/20/25 14:06	1
Carbon disulfide	ND		0.0050	0.0017	mg/L			09/20/25 14:06	1
Carbon tetrachloride	ND		0.0020	0.00090	mg/L			09/20/25 14:06	1
Chlorobenzene	ND		0.0010	0.00046	mg/L			09/20/25 14:06	1
Chloroethane	ND		0.010	0.0020	mg/L			09/20/25 14:06	1
Chloroform	ND		0.0010	0.00046	mg/L			09/20/25 14:06	1
Chloromethane	ND		0.010	0.0020	mg/L			09/20/25 14:06	1
cis-1,2-Dichloroethene	ND		0.0010	0.00046	mg/L			09/20/25 14:06	1
cis-1,3-Dichloropropene	ND		0.0050	0.0011	mg/L			09/20/25 14:06	1
Cumene	ND		0.0010	0.00059	mg/L			09/20/25 14:06	1
Dibromochloromethane	ND		0.0050	0.00055	mg/L			09/20/25 14:06	1
1,1-Dichloroethane	ND		0.0010	0.00064	mg/L			09/20/25 14:06	1
1,2-Dichloroethane	ND		0.0010	0.00037	mg/L			09/20/25 14:06	1
1,1-Dichloroethene	ND		0.0010	0.00074	mg/L			09/20/25 14:06	1
1,2-Dichloropropane	ND		0.0050	0.00056	mg/L			09/20/25 14:06	1
Ethylbenzene	ND		0.0010	0.00039	mg/L			09/20/25 14:06	1
Hexane	ND		0.0050	0.00052	mg/L			09/20/25 14:06	1
2-Hexanone	ND		0.050	0.0050	mg/L			09/20/25 14:06	1
Methylene Chloride	ND		0.0050	0.0017	mg/L			09/20/25 14:06	1
4-Methyl-2-pentanone	ND		0.050	0.0050	mg/L			09/20/25 14:06	1
m,p-Xylenes	ND		0.0020	0.0012	mg/L			09/20/25 14:06	1
o-Xylene	ND		0.0010	0.00050	mg/L			09/20/25 14:06	1
Styrene	ND		0.0010	0.00062	mg/L			09/20/25 14:06	1
1,1,2,2-Tetrachloroethane	ND		0.0010	0.00047	mg/L			09/20/25 14:06	1
Tetrachloroethene	ND		0.0010	0.00066	mg/L			09/20/25 14:06	1
Toluene	ND		0.0010	0.00048	mg/L			09/20/25 14:06	1
trans-1,2-Dichloroethene	ND		0.0010	0.00037	mg/L			09/20/25 14:06	1
trans-1,3-Dichloropropene	ND		0.0050	0.0013	mg/L			09/20/25 14:06	1
1,1,1-Trichloroethane	ND		0.0050	0.00059	mg/L			09/20/25 14:06	1
1,1,2-Trichloroethane	ND		0.0010	0.00041	mg/L			09/20/25 14:06	1
Trichloroethene	ND		0.0050	0.0015	mg/L			09/20/25 14:06	1
Vinyl chloride	ND		0.0020	0.00043	mg/L			09/20/25 14:06	1
Xylenes, Total	ND		0.0020	0.0012	mg/L			09/20/25 14:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		64 - 714		2901201/ 7452:	7
Dibromofluoromethane (Surr)	99		6/ - 737		2901201/ 7452:	7
7,1-Dichloroethane-d4 (Surr)	771		: 3 - 744		2901201/ 7452:	7
Toluene-d8 (Surr)	721		82 - 712		2901201/ 7452:	7

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 860-263344/3

Matrix: Water

Analysis Batch: 263344

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	0.250	0.178		mg/L		71	60 - 140
Benzene	0.0500	0.0463		mg/L		93	75 - 125
Bromochloromethane	0.0500	0.0474		mg/L		95	60 - 140
Bromoform	0.0500	0.0610		mg/L		122	70 - 130
1,3-Butadiene	0.0500	0.0534		mg/L		107	60 - 150
2-Butanone	0.250	0.206		mg/L		82	60 - 140
Carbon disulfide	0.0500	0.0487		mg/L		97	60 - 140
Carbon tetrachloride	0.0500	0.0596		mg/L		119	70 - 125
Chlorobenzene	0.0500	0.0556		mg/L		111	82 - 135
Chloroethane	0.0500	0.0483		mg/L		97	60 - 140
Chloroform	0.0500	0.0527		mg/L		105	70 - 121
Chloromethane	0.0500	0.0514		mg/L		103	60 - 140
cis-1,2-Dichloroethene	0.0500	0.0510		mg/L		102	75 - 125
cis-1,3-Dichloropropene	0.0500	0.0543		mg/L		109	74 - 125
Cumene	0.0500	0.0490		mg/L		98	75 - 125
Dibromochloromethane	0.0500	0.0571		mg/L		114	73 - 125
1,1-Dichloroethane	0.0500	0.0479		mg/L		96	71 - 130
1,2-Dichloroethane	0.0500	0.0612		mg/L		122	72 - 130
1,1-Dichloroethene	0.0500	0.0520		mg/L		104	50 - 150
1,2-Dichloropropane	0.0500	0.0495		mg/L		99	74 - 125
Ethylbenzene	0.0500	0.0550		mg/L		110	75 - 125
Hexane	0.0500	0.0502		mg/L		100	72 - 125
2-Hexanone	0.250	0.233		mg/L		93	60 - 140
Methylene Chloride	0.0500	0.0433		mg/L		87	71 - 125
4-Methyl-2-pentanone	0.250	0.221		mg/L		88	60 - 140
m,p-Xylenes	0.0500	0.0551		mg/L		110	75 - 125
o-Xylene	0.0500	0.0546		mg/L		109	75 - 125
Styrene	0.0500	0.0557		mg/L		111	75 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0525		mg/L		105	74 - 125
Tetrachloroethene	0.0500	0.0559		mg/L		112	71 - 125
Toluene	0.0500	0.0533		mg/L		107	75 - 130
trans-1,2-Dichloroethene	0.0500	0.0500		mg/L		100	75 - 125
trans-1,3-Dichloropropene	0.0500	0.0568		mg/L		114	66 - 125
1,1,1-Trichloroethane	0.0500	0.0570		mg/L		114	70 - 130
1,1,2-Trichloroethane	0.0500	0.0504		mg/L		101	75 - 130
Trichloroethene	0.0500	0.0548		mg/L		110	75 - 135
Vinyl chloride	0.0500	0.0523		mg/L		105	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		64 - 714
Dibromofluoromethane (Surr)	9:		6/ - 737
7,1-Dichloroethane-d4 (Surr)	728		: 3 - 744
Toluene-d8 (Surr)	99		82 - 712

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-263344/4

Matrix: Water

Analysis Batch: 263344

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	0.250	0.194		mg/L		78	60 - 140	8	25
Benzene	0.0500	0.0464		mg/L		93	75 - 125	0	25
Bromochloromethane	0.0500	0.0481		mg/L		96	60 - 140	2	25
Bromoform	0.0500	0.0590		mg/L		118	70 - 130	3	25
1,3-Butadiene	0.0500	0.0521		mg/L		104	60 - 150	2	25
2-Butanone	0.250	0.198		mg/L		79	60 - 140	4	25
Carbon disulfide	0.0500	0.0493		mg/L		99	60 - 140	1	25
Carbon tetrachloride	0.0500	0.0585		mg/L		117	70 - 125	2	25
Chlorobenzene	0.0500	0.0547		mg/L		109	82 - 135	2	25
Chloroethane	0.0500	0.0525		mg/L		105	60 - 140	8	25
Chloroform	0.0500	0.0531		mg/L		106	70 - 121	1	25
Chloromethane	0.0500	0.0517		mg/L		103	60 - 140	1	25
cis-1,2-Dichloroethene	0.0500	0.0511		mg/L		102	75 - 125	0	25
cis-1,3-Dichloropropene	0.0500	0.0544		mg/L		109	74 - 125	0	25
Cumene	0.0500	0.0486		mg/L		97	75 - 125	1	25
Dibromochloromethane	0.0500	0.0573		mg/L		115	73 - 125	0	25
1,1-Dichloroethane	0.0500	0.0483		mg/L		97	71 - 130	1	25
1,2-Dichloroethane	0.0500	0.0596		mg/L		119	72 - 130	3	25
1,1-Dichloroethene	0.0500	0.0533		mg/L		107	50 - 150	2	25
1,2-Dichloropropane	0.0500	0.0492		mg/L		98	74 - 125	1	25
Ethylbenzene	0.0500	0.0544		mg/L		109	75 - 125	1	25
Hexane	0.0500	0.0495		mg/L		99	72 - 125	1	25
2-Hexanone	0.250	0.221		mg/L		89	60 - 140	5	25
Methylene Chloride	0.0500	0.0443		mg/L		89	71 - 125	2	25
4-Methyl-2-pentanone	0.250	0.216		mg/L		86	60 - 140	2	25
m,p-Xylenes	0.0500	0.0538		mg/L		108	75 - 125	2	25
o-Xylene	0.0500	0.0541		mg/L		108	75 - 125	1	25
Styrene	0.0500	0.0554		mg/L		111	75 - 125	1	25
1,1,2,2-Tetrachloroethane	0.0500	0.0498		mg/L		100	74 - 125	5	25
Tetrachloroethene	0.0500	0.0551		mg/L		110	71 - 125	1	25
Toluene	0.0500	0.0532		mg/L		106	75 - 130	0	25
trans-1,2-Dichloroethene	0.0500	0.0533		mg/L		107	75 - 125	6	25
trans-1,3-Dichloropropene	0.0500	0.0576		mg/L		115	66 - 125	1	25
1,1,1-Trichloroethane	0.0500	0.0574		mg/L		115	70 - 130	1	25
1,1,2-Trichloroethane	0.0500	0.0500		mg/L		100	75 - 130	1	25
Trichloroethene	0.0500	0.0559		mg/L		112	75 - 135	2	25
Vinyl chloride	0.0500	0.0516		mg/L		103	60 - 140	1	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	9:		64 - 714
Dibromofluoromethane (Surr)	98		6/ - 737
7,1-Dichloroethane-d4 (Surr)	72:		: 3 - 744
Toluene-d8 (Surr)	98		82 - 712

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 880-62669-B-4 MS

Matrix: Water

Analysis Batch: 263344

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		0.250	0.183		mg/L		73	60 - 140
Benzene	ND		0.0500	0.0432		mg/L		86	66 - 142
Bromochloromethane	ND		0.0500	0.0453		mg/L		91	60 - 140
Bromoform	ND		0.0500	0.0538		mg/L		108	75 - 125
1,3-Butadiene	ND		0.0500	0.0503		mg/L		101	70 - 150
2-Butanone	ND		0.250	0.187		mg/L		75	60 - 140
Carbon disulfide	ND		0.0500	0.0463		mg/L		93	60 - 140
Carbon tetrachloride	ND		0.0500	0.0565		mg/L		113	62 - 125
Chlorobenzene	ND		0.0500	0.0507		mg/L		101	60 - 133
Chloroethane	ND		0.0500	0.0475		mg/L		95	60 - 140
Chloroform	ND		0.0500	0.0512		mg/L		101	70 - 130
Chloromethane	ND		0.0500	0.0455		mg/L		91	60 - 140
cis-1,2-Dichloroethene	0.083		0.0500	0.131		mg/L		95	75 - 125
cis-1,3-Dichloropropene	ND		0.0500	0.0505		mg/L		101	74 - 125
Cumene	ND		0.0500	0.0444		mg/L		89	75 - 125
Dibromochloromethane	ND		0.0500	0.0516		mg/L		103	73 - 125
1,1-Dichloroethane	0.020		0.0500	0.0672		mg/L		95	72 - 125
1,2-Dichloroethane	ND		0.0500	0.0554		mg/L		111	68 - 127
1,1-Dichloroethene	0.047		0.0500	0.100		mg/L		106	59 - 172
1,2-Dichloropropane	ND		0.0500	0.0447		mg/L		89	74 - 125
Ethylbenzene	ND		0.0500	0.0500		mg/L		100	75 - 125
Hexane	ND		0.0500	0.0493		mg/L		99	72 - 125
2-Hexanone	ND		0.250	0.203		mg/L		81	60 - 140
Methylene Chloride	ND		0.0500	0.0414		mg/L		83	75 - 125
4-Methyl-2-pentanone	ND		0.250	0.206		mg/L		82	60 - 140
m,p-Xylenes	ND		0.0500	0.0500		mg/L		100	75 - 125
o-Xylene	ND		0.0500	0.0502		mg/L		100	75 - 125
Styrene	ND		0.0500	0.0503		mg/L		101	75 - 125
1,1,2,2-Tetrachloroethane	ND		0.0500	0.0458		mg/L		92	74 - 125
Tetrachloroethene	0.0099		0.0500	0.0599		mg/L		100	71 - 125
Toluene	ND		0.0500	0.0491		mg/L		98	59 - 139
trans-1,2-Dichloroethene	0.0013		0.0500	0.0519		mg/L		101	75 - 125
trans-1,3-Dichloropropene	ND		0.0500	0.0513		mg/L		103	66 - 125
1,1,1-Trichloroethane	ND		0.0500	0.0534		mg/L		107	75 - 125
1,1,2-Trichloroethane	ND		0.0500	0.0486		mg/L		96	75 - 127
Trichloroethene	0.031		0.0500	0.0827		mg/L		103	62 - 137
Vinyl chloride	ND		0.0500	0.0466		mg/L		93	60 - 140
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	96		64 - 714						
Dibromofluoromethane (Surr)	98		6/ - 737						
7,1-Dichloroethane-d4 (Surr)	729		: 3 - 744						
Toluene-d8 (Surr)	98		82 - 712						

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 880-62669-C-4 MSD

Matrix: Water

Analysis Batch: 263344

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	ND		0.250	0.183		mg/L		73	60 - 140	0	25
Benzene	ND		0.0500	0.0457		mg/L		91	66 - 142	6	25
Bromochloromethane	ND		0.0500	0.0471		mg/L		94	60 - 140	4	25
Bromoform	ND		0.0500	0.0569		mg/L		114	75 - 125	6	25
1,3-Butadiene	ND		0.0500	0.0490		mg/L		98	70 - 150	2	25
2-Butanone	ND		0.250	0.194		mg/L		78	60 - 140	4	25
Carbon disulfide	ND		0.0500	0.0482		mg/L		96	60 - 140	4	25
Carbon tetrachloride	ND		0.0500	0.0557		mg/L		111	62 - 125	1	25
Chlorobenzene	ND		0.0500	0.0534		mg/L		107	60 - 133	5	25
Chloroethane	ND		0.0500	0.0462		mg/L		92	60 - 140	3	25
Chloroform	ND		0.0500	0.0526		mg/L		104	70 - 130	3	25
Chloromethane	ND		0.0500	0.0461		mg/L		92	60 - 140	1	25
cis-1,2-Dichloroethene	0.083		0.0500	0.133		mg/L		99	75 - 125	1	25
cis-1,3-Dichloropropene	ND		0.0500	0.0535		mg/L		107	74 - 125	6	25
Cumene	ND		0.0500	0.0472		mg/L		94	75 - 125	6	25
Dibromochloromethane	ND		0.0500	0.0543		mg/L		109	73 - 125	5	25
1,1-Dichloroethane	0.020		0.0500	0.0688		mg/L		98	72 - 125	2	25
1,2-Dichloroethane	ND		0.0500	0.0587		mg/L		117	68 - 127	6	25
1,1-Dichloroethene	0.047		0.0500	0.100		mg/L		106	59 - 172	0	25
1,2-Dichloropropane	ND		0.0500	0.0483		mg/L		97	74 - 125	8	25
Ethylbenzene	ND		0.0500	0.0532		mg/L		106	75 - 125	6	25
Hexane	ND		0.0500	0.0503		mg/L		101	72 - 125	2	25
2-Hexanone	ND		0.250	0.218		mg/L		87	60 - 140	7	25
Methylene Chloride	ND		0.0500	0.0418		mg/L		84	75 - 125	1	25
4-Methyl-2-pentanone	ND		0.250	0.216		mg/L		86	60 - 140	5	25
m,p-Xylenes	ND		0.0500	0.0524		mg/L		105	75 - 125	5	25
o-Xylene	ND		0.0500	0.0529		mg/L		106	75 - 125	5	25
Styrene	ND		0.0500	0.0527		mg/L		105	75 - 125	5	25
1,1,2,2-Tetrachloroethane	ND		0.0500	0.0479		mg/L		96	74 - 125	4	25
Tetrachloroethene	0.0099		0.0500	0.0646		mg/L		110	71 - 125	8	25
Toluene	ND		0.0500	0.0524		mg/L		105	59 - 139	7	25
trans-1,2-Dichloroethene	0.0013		0.0500	0.0503		mg/L		98	75 - 125	3	25
trans-1,3-Dichloropropene	ND		0.0500	0.0537		mg/L		107	66 - 125	4	25
1,1,1-Trichloroethane	ND		0.0500	0.0550		mg/L		110	75 - 125	3	25
1,1,2-Trichloroethane	ND		0.0500	0.0502		mg/L		99	75 - 127	3	25
Trichloroethene	0.031		0.0500	0.0886		mg/L		115	62 - 137	7	25
Vinyl chloride	ND		0.0500	0.0471		mg/L		94	60 - 140	1	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	9:		64 - 714
Dibromofluoromethane (Surr)	9:		6/ - 737
7,1-Dichloroethane-d4 (Surr)	777		: 3 - 744
Toluene-d8 (Surr)	98		82 - 712

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS)

Lab Sample ID: MB 860-263589/1-A

Matrix: Water

Analysis Batch: 263528

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 263589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.00057	0.00012	mg/L		09/22/25 13:50	09/22/25 17:46	1
1,2-Dichlorobenzene	ND		0.00057	0.00010	mg/L		09/22/25 13:50	09/22/25 17:46	1
1,3-Dichlorobenzene	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
1,4-Dichlorobenzene	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
2,4,5-Trichlorophenol	ND		0.00057	0.00043	mg/L		09/22/25 13:50	09/22/25 17:46	1
2,4,6-Trichlorophenol	ND		0.00057	0.00012	mg/L		09/22/25 13:50	09/22/25 17:46	1
2,4-Dichlorophenol	ND		0.00057	0.00013	mg/L		09/22/25 13:50	09/22/25 17:46	1
2,4-Dimethylphenol	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
2,4-Dinitrophenol	ND		0.0057	0.0014	mg/L		09/22/25 13:50	09/22/25 17:46	1
2,4-Dinitrotoluene	ND		0.0011	0.00051	mg/L		09/22/25 13:50	09/22/25 17:46	1
2,6-Dinitrotoluene	ND		0.00057	0.00027	mg/L		09/22/25 13:50	09/22/25 17:46	1
2-Chloronaphthalene	ND		0.00057	0.00012	mg/L		09/22/25 13:50	09/22/25 17:46	1
2-Chlorophenol	ND		0.00057	0.00010	mg/L		09/22/25 13:50	09/22/25 17:46	1
2-Methylnaphthalene	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
2-Nitroaniline	ND		0.00057	0.00016	mg/L		09/22/25 13:50	09/22/25 17:46	1
2-Nitrophenol	ND		0.00057	0.00014	mg/L		09/22/25 13:50	09/22/25 17:46	1
2-Methylphenol	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
3 & 4 Methylphenol	ND		0.00057	0.000094	mg/L		09/22/25 13:50	09/22/25 17:46	1
3,3'-Dichlorobenzidine	ND		0.0011	0.00065	mg/L		09/22/25 13:50	09/22/25 17:46	1
3-Nitroaniline	ND		0.0011	0.00022	mg/L		09/22/25 13:50	09/22/25 17:46	1
4,6-Dinitro-2-methylphenol	ND		0.0029	0.0012	mg/L		09/22/25 13:50	09/22/25 17:46	1
4-Bromophenyl phenyl ether	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
4-Chloroaniline	ND		0.00057	0.000088	mg/L		09/22/25 13:50	09/22/25 17:46	1
4-Chlorophenyl phenyl ether	ND		0.00057	0.000095	mg/L		09/22/25 13:50	09/22/25 17:46	1
4-Nitroaniline	ND		0.0011	0.00027	mg/L		09/22/25 13:50	09/22/25 17:46	1
4-Nitrophenol	ND		0.0011	0.00067	mg/L		09/22/25 13:50	09/22/25 17:46	1
4-Chloro-3-methylphenol	ND		0.00057	0.00012	mg/L		09/22/25 13:50	09/22/25 17:46	1
Acenaphthene	ND		0.00057	0.00010	mg/L		09/22/25 13:50	09/22/25 17:46	1
Acenaphthylene	ND		0.00057	0.00012	mg/L		09/22/25 13:50	09/22/25 17:46	1
Anthracene	ND		0.00057	0.00010	mg/L		09/22/25 13:50	09/22/25 17:46	1
Benzidine	ND		0.0029	0.00054	mg/L		09/22/25 13:50	09/22/25 17:46	1
Benzo[a]anthracene	ND		0.00029	0.00013	mg/L		09/22/25 13:50	09/22/25 17:46	1
Benzo[a]pyrene	ND		0.00029	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
Benzo[b]fluoranthene	ND		0.00057	0.00012	mg/L		09/22/25 13:50	09/22/25 17:46	1
Benzo[g,h,i]perylene	ND		0.00057	0.000090	mg/L		09/22/25 13:50	09/22/25 17:46	1
Benzo[k]fluoranthene	ND		0.00057	0.00012	mg/L		09/22/25 13:50	09/22/25 17:46	1
Benzyl alcohol	ND		0.0029	0.00022	mg/L		09/22/25 13:50	09/22/25 17:46	1
Butyl benzyl phthalate	ND		0.0011	0.00034	mg/L		09/22/25 13:50	09/22/25 17:46	1
Carbazole	ND		0.0011	0.00045	mg/L		09/22/25 13:50	09/22/25 17:46	1
Chrysene	ND		0.00057	0.000097	mg/L		09/22/25 13:50	09/22/25 17:46	1
Dibenz(a,h)anthracene	ND		0.00011	0.000085	mg/L		09/22/25 13:50	09/22/25 17:46	1
Dibenzofuran	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
Diethyl phthalate	ND		0.0011	0.00019	mg/L		09/22/25 13:50	09/22/25 17:46	1
Dimethyl phthalate	ND		0.0011	0.00013	mg/L		09/22/25 13:50	09/22/25 17:46	1
Fluoranthene	ND		0.00057	0.00012	mg/L		09/22/25 13:50	09/22/25 17:46	1
Fluorene	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
Hexachlorobenzene	ND		0.00057	0.00013	mg/L		09/22/25 13:50	09/22/25 17:46	1
Hexachlorobutadiene	ND		0.00057	0.00016	mg/L		09/22/25 13:50	09/22/25 17:46	1

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Lab Sample ID: MB 860-263589/1-A

Matrix: Water

Analysis Batch: 263528

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 263589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		0.0011	0.00018	mg/L		09/22/25 13:50	09/22/25 17:46	1
Hexachloroethane	ND		0.00057	0.00012	mg/L		09/22/25 13:50	09/22/25 17:46	1
Indeno[1,2,3-cd]pyrene	ND		0.00057	0.00010	mg/L		09/22/25 13:50	09/22/25 17:46	1
Isophorone	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
N-Nitrosodi-n-propylamine	ND		0.00057	0.00015	mg/L		09/22/25 13:50	09/22/25 17:46	1
N-Nitrosodimethylamine	ND		0.00057	0.00016	mg/L		09/22/25 13:50	09/22/25 17:46	1
N-Nitrosodiphenylamine	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
Naphthalene	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
Nitrobenzene	ND		0.00057	0.00015	mg/L		09/22/25 13:50	09/22/25 17:46	1
Pentachlorophenol	ND		0.00057	0.00031	mg/L		09/22/25 13:50	09/22/25 17:46	1
Phenanthrene	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
Phenol	ND		0.0011	0.00051	mg/L		09/22/25 13:50	09/22/25 17:46	1
Pyrene	ND		0.00057	0.00013	mg/L		09/22/25 13:50	09/22/25 17:46	1
Pyridine	ND		0.0029	0.00084	mg/L		09/22/25 13:50	09/22/25 17:46	1
Bis(2-chloroethoxy)methane	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
Bis(2-chloroethyl)ether	ND		0.00057	0.00011	mg/L		09/22/25 13:50	09/22/25 17:46	1
2,2'-oxybis(1-chloropropane)	ND		0.0029	0.0018	mg/L		09/22/25 13:50	09/22/25 17:46	1
Bis(2-ethylhexyl) phthalate	ND		0.0011	0.00057	mg/L		09/22/25 13:50	09/22/25 17:46	1
Di-n-butyl phthalate	ND		0.0011	0.00066	mg/L		09/22/25 13:50	09/22/25 17:46	1
Di-n-octyl phthalate	ND		0.0011	0.00029	mg/L		09/22/25 13:50	09/22/25 17:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4,--Tribromophenol (Surr)	::		3/- 732	2901101/ 735 2	2901101/ 765:	7
1-Fluorobiphenyl (Surr)	67		43 - 732	2901101/ 735 2	2901101/ 765:	7
1-Fluorophenol (Surr)	: 8		79 - 712	2901101/ 735 2	2901101/ 765:	7
Nitrobenzene-d/ (Surr)	6:		36 - 733	2901101/ 735 2	2901101/ 765:	7
p-Terphenyl-d74 (Surr)	: 3		46 - 732	2901101/ 735 2	2901101/ 765:	7
Phenol-d/ (Surr)	: 4		8 - 714	2901101/ 735 2	2901101/ 765:	7

Lab Sample ID: LCS 860-263589/2-A

Matrix: Water

Analysis Batch: 263528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 263589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	0.00571	0.00363		mg/L		63	55 - 120
1,2-Dichlorobenzene	0.00571	0.00357	*-	mg/L		62	65 - 130
1,3-Dichlorobenzene	0.00571	0.00371		mg/L		65	26 - 130
1,4-Dichlorobenzene	0.00571	0.00360		mg/L		63	60 - 150
2,4,5-Trichlorophenol	0.00571	0.00378		mg/L		66	58 - 150
2,4,6-Trichlorophenol	0.00571	0.00392		mg/L		69	39 - 145
2,4-Dichlorophenol	0.00571	0.00386		mg/L		67	60 - 147
2,4-Dimethylphenol	0.00571	0.00378		mg/L		66	58 - 140
2,4-Dinitrophenol	0.00571	0.00449	J	mg/L		79	10 - 150
2,4-Dinitrotoluene	0.00571	0.00429		mg/L		75	55 - 145
2,6-Dinitrotoluene	0.00571	0.00424		mg/L		74	55 - 150
2-Chloronaphthalene	0.00571	0.00413		mg/L		72	39 - 141
2-Chlorophenol	0.00571	0.00362		mg/L		63	51 - 143
2-Methylnaphthalene	0.00571	0.00389		mg/L		68	33 - 149

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Lab Sample ID: LCS 860-263589/2-A

Matrix: Water

Analysis Batch: 263528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 263589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitroaniline	0.00571	0.00420		mg/L		73	42 - 150
2-Nitrophenol	0.00571	0.00410		mg/L		72	43 - 150
2-Methylphenol	0.00571	0.00435		mg/L		76	49 - 140
3 & 4 Methylphenol	0.00571	0.00396		mg/L		69	55 - 142
3,3'-Dichlorobenzidine	0.00571	0.00153		mg/L		27	10 - 128
3-Nitroaniline	0.00571	0.00335		mg/L		59	25 - 130
4,6-Dinitro-2-methylphenol	0.00571	0.00426		mg/L		75	10 - 150
4-Bromophenyl phenyl ether	0.00571	0.00403		mg/L		70	56 - 136
4-Chloroaniline	0.00571	0.00231		mg/L		40	10 - 95
4-Chlorophenyl phenyl ether	0.00571	0.00436		mg/L		76	53 - 134
4-Nitroaniline	0.00571	0.00394		mg/L		69	45 - 148
4-Nitrophenol	0.00571	0.00317		mg/L		56	34 - 150
4-Chloro-3-methylphenol	0.00571	0.00390		mg/L		68	52 - 137
Acenaphthene	0.00571	0.00362		mg/L		63	48 - 136
Acenaphthylene	0.00571	0.00364		mg/L		64	40 - 149
Anthracene	0.00571	0.00375		mg/L		66	51 - 146
Benzidine	0.00571	0.00195	J	mg/L		34	5 - 82
Benzo[a]anthracene	0.00571	0.00412		mg/L		72	43 - 145
Benzo[a]pyrene	0.00571	0.00401		mg/L		70	52 - 136
Benzo[b]fluoranthene	0.00571	0.00449		mg/L		78	45 - 140
Benzo[g,h,i]perylene	0.00571	0.00391		mg/L		68	44 - 137
Benzo[k]fluoranthene	0.00571	0.00392		mg/L		69	37 - 140
Benzyl alcohol	0.00571	0.00214	J *	mg/L		37	40 - 133
Butyl benzyl phthalate	0.00571	0.00440		mg/L		77	60 - 150
Carbazole	0.00571	0.00411		mg/L		72	60 - 150
Chrysene	0.00571	0.00361		mg/L		63	47 - 137
Dibenz(a,h)anthracene	0.00571	0.00405		mg/L		71	50 - 147
Dibenzofuran	0.00571	0.00443		mg/L		78	52 - 139
Diethyl phthalate	0.00571	0.00411		mg/L		72	55 - 137
Dimethyl phthalate	0.00571	0.00400		mg/L		70	44 - 150
Fluoranthene	0.00571	0.00385		mg/L		67	50 - 144
Fluorene	0.00571	0.00367		mg/L		64	54 - 136
Hexachlorobenzene	0.00571	0.00384		mg/L		67	55 - 138
Hexachlorobutadiene	0.00571	0.00341		mg/L		60	45 - 150
Hexachlorocyclopentadiene	0.00571	0.00386		mg/L		67	24 - 150
Hexachloroethane	0.00571	0.00379		mg/L		66	30 - 130
Indeno[1,2,3-cd]pyrene	0.00571	0.00408		mg/L		71	46 - 138
Isophorone	0.00571	0.00370		mg/L		65	48 - 147
N-Nitrosodi-n-propylamine	0.00571	0.00448		mg/L		78	41 - 137
N-Nitrosodimethylamine	0.00571	0.00401		mg/L		70	33 - 148
N-Nitrosodiphenylamine	0.00571	0.00401		mg/L		70	51 - 135
Naphthalene	0.00571	0.00440		mg/L		77	35 - 141
Nitrobenzene	0.00571	0.00377		mg/L		66	52 - 141
Pentachlorophenol	0.00571	0.00431		mg/L		75	33 - 150
Phenanthrene	0.00571	0.00410		mg/L		72	54 - 141
Phenol	0.00571	0.00371		mg/L		65	40 - 145
Pyrene	0.00571	0.00394		mg/L		69	50 - 143
Pyridine	0.00571	0.00139	J	mg/L		24	10 - 84
Bis(2-chloroethoxy)methane	0.00571	0.00367		mg/L		64	52 - 143

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Lab Sample ID: LCS 860-263589/2-A

Matrix: Water

Analysis Batch: 263528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 263589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-chloroethyl)ether	0.00571	0.00359		mg/L		63	52 - 140
2,2'-oxybis(1-chloropropane)	0.00571	0.00357	*-	mg/L		62	65 - 145
Bis(2-ethylhexyl) phthalate	0.00571	0.00420		mg/L		73	50 - 140
Di-n-butyl phthalate	0.00571	0.00390		mg/L		68	49 - 146
Di-n-octyl phthalate	0.00571	0.00481		mg/L		84	55 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4,-: -Tribromophenol (Surr)	63		3/ - 732
1-Fluorobiphenyl (Surr)	: /		43 - 732
1-Fluorophenol (Surr)	: 4		79 - 712
Nitrobenzene-d/ (Surr)	: :		36 - 733
p-Terphenyl-d74 (Surr)	: 2		46 - 732
Phenol-d/ (Surr)	: 1		8 - 714

Lab Sample ID: LCSD 860-263589/3-A

Matrix: Water

Analysis Batch: 263528

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 263589

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	0.00571	0.00391		mg/L		68	55 - 120	8	30
1,2-Dichlorobenzene	0.00571	0.00398		mg/L		70	65 - 130	11	30
1,3-Dichlorobenzene	0.00571	0.00415		mg/L		73	26 - 130	11	30
1,4-Dichlorobenzene	0.00571	0.00418		mg/L		73	60 - 150	15	30
2,4,5-Trichlorophenol	0.00571	0.00404		mg/L		71	58 - 150	7	30
2,4,6-Trichlorophenol	0.00571	0.00415		mg/L		73	39 - 145	6	30
2,4-Dichlorophenol	0.00571	0.00428		mg/L		75	60 - 147	11	30
2,4-Dimethylphenol	0.00571	0.00417		mg/L		73	58 - 140	10	30
2,4-Dinitrophenol	0.00571	0.00466	J	mg/L		82	10 - 150	4	30
2,4-Dinitrotoluene	0.00571	0.00483		mg/L		84	55 - 145	12	30
2,6-Dinitrotoluene	0.00571	0.00467		mg/L		82	55 - 150	10	30
2-Chloronaphthalene	0.00571	0.00429		mg/L		75	39 - 141	4	30
2-Chlorophenol	0.00571	0.00409		mg/L		72	51 - 143	12	30
2-Methylnaphthalene	0.00571	0.00403		mg/L		71	33 - 149	3	30
2-Nitroaniline	0.00571	0.00470		mg/L		82	42 - 150	11	30
2-Nitrophenol	0.00571	0.00455		mg/L		80	43 - 150	10	30
2-Methylphenol	0.00571	0.00506		mg/L		89	49 - 140	15	30
3 & 4 Methylphenol	0.00571	0.00434		mg/L		76	55 - 142	9	30
3,3'-Dichlorobenzidine	0.00571	0.00102	J *1	mg/L		18	10 - 128	40	30
3-Nitroaniline	0.00571	0.00369		mg/L		65	25 - 130	10	30
4,6-Dinitro-2-methylphenol	0.00571	0.00473		mg/L		83	10 - 150	11	30
4-Bromophenyl phenyl ether	0.00571	0.00450		mg/L		79	56 - 136	11	30
4-Chloroaniline	0.00571	0.00234		mg/L		41	10 - 95	1	30
4-Chlorophenyl phenyl ether	0.00571	0.00480		mg/L		84	53 - 134	9	30
4-Nitroaniline	0.00571	0.00452		mg/L		79	45 - 148	14	30
4-Nitrophenol	0.00571	0.00458	*1	mg/L		80	34 - 150	36	30
4-Chloro-3-methylphenol	0.00571	0.00422		mg/L		74	52 - 137	8	30
Acenaphthene	0.00571	0.00407		mg/L		71	48 - 136	12	30
Acenaphthylene	0.00571	0.00394		mg/L		69	40 - 149	8	30

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Lab Sample ID: LCSD 860-263589/3-A

Matrix: Water

Analysis Batch: 263528

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 263589

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene	0.00571	0.00412		mg/L		72	51 - 146	9	30
Benzidine	0.00571	0.00233	J	mg/L		41	5 - 82	18	30
Benzo[a]anthracene	0.00571	0.00454		mg/L		79	43 - 145	10	30
Benzo[a]pyrene	0.00571	0.00445		mg/L		78	52 - 136	10	30
Benzo[b]fluoranthene	0.00571	0.00504		mg/L		88	45 - 140	12	30
Benzo[g,h,i]perylene	0.00571	0.00441		mg/L		77	44 - 137	12	30
Benzo[k]fluoranthene	0.00571	0.00414		mg/L		72	37 - 140	5	30
Benzyl alcohol	0.00571	0.00198	J *	mg/L		35	40 - 133	8	30
Butyl benzyl phthalate	0.00571	0.00496		mg/L		87	60 - 150	12	30
Carbazole	0.00571	0.00452		mg/L		79	60 - 150	10	30
Chrysene	0.00571	0.00392		mg/L		69	47 - 137	8	30
Dibenz(a,h)anthracene	0.00571	0.00468		mg/L		82	50 - 147	14	30
Dibenzofuran	0.00571	0.00493		mg/L		86	52 - 139	11	30
Diethyl phthalate	0.00571	0.00451		mg/L		79	55 - 137	9	30
Dimethyl phthalate	0.00571	0.00434		mg/L		76	44 - 150	8	30
Fluoranthene	0.00571	0.00443		mg/L		77	50 - 144	14	30
Fluorene	0.00571	0.00411		mg/L		72	54 - 136	11	30
Hexachlorobenzene	0.00571	0.00428		mg/L		75	55 - 138	11	30
Hexachlorobutadiene	0.00571	0.00372		mg/L		65	45 - 150	9	30
Hexachlorocyclopentadiene	0.00571	0.00413		mg/L		72	24 - 150	7	30
Hexachloroethane	0.00571	0.00436		mg/L		76	30 - 130	14	30
Indeno[1,2,3-cd]pyrene	0.00571	0.00462		mg/L		81	46 - 138	12	30
Isophorone	0.00571	0.00408		mg/L		71	48 - 147	10	30
N-Nitrosodi-n-propylamine	0.00571	0.00453		mg/L		79	41 - 137	1	30
N-Nitrosodimethylamine	0.00571	0.00452		mg/L		79	33 - 148	12	30
N-Nitrosodiphenylamine	0.00571	0.00448		mg/L		78	51 - 135	11	30
Naphthalene	0.00571	0.00485		mg/L		85	35 - 141	10	30
Nitrobenzene	0.00571	0.00441		mg/L		77	52 - 141	16	30
Pentachlorophenol	0.00571	0.00483		mg/L		84	33 - 150	11	30
Phenanthrene	0.00571	0.00460		mg/L		81	54 - 141	11	30
Phenol	0.00571	0.00411		mg/L		72	40 - 145	10	30
Pyrene	0.00571	0.00440		mg/L		77	50 - 143	11	30
Pyridine	0.00571	ND	*- *1	mg/L		6	10 - 84	118	30
Bis(2-chloroethoxy)methane	0.00571	0.00400		mg/L		70	52 - 143	9	30
Bis(2-chloroethyl)ether	0.00571	0.00402		mg/L		70	52 - 140	11	30
2,2'-oxybis(1-chloropropane)	0.00571	0.00397		mg/L		69	65 - 145	11	30
Bis(2-ethylhexyl) phthalate	0.00571	0.00455		mg/L		80	50 - 140	8	30
Di-n-butyl phthalate	0.00571	0.00435		mg/L		76	49 - 146	11	30
Di-n-octyl phthalate	0.00571	0.00532		mg/L		93	55 - 150	10	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4,- -Tribromophenol (Surr)	6:		3/ - 732
1-Fluorobiphenyl (Surr)	6/		43 - 732
1-Fluorophenol (Surr)	61		79 - 712
Nitrobenzene-d/ (Surr)	64		36 - 733
p-Terphenyl-d74 (Surr)	: 8		46 - 732
Phenol-d/ (Surr)	62		8 - 714

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Lab Sample ID: MB 860-264432/1-A

Matrix: Water

Analysis Batch: 264437

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 264432

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac		
1,4,-Tribromophenol (Surr)	62		3/ - 732	2901/ 01/ 7153/	2901/ 01/ 79577	7			
1-Fluorobiphenyl (Surr)	722		43 - 732	2901/ 01/ 7153/	2901/ 01/ 79577	7			
1-Fluorophenol (Surr)	98		79 - 712	2901/ 01/ 7153/	2901/ 01/ 79577	7			
Nitrobenzene-d/ (Surr)	97		36 - 733	2901/ 01/ 7153/	2901/ 01/ 79577	7			
p-Terphenyl-d74 (Surr)	89		46 - 732	2901/ 01/ 7153/	2901/ 01/ 79577	7			
Phenol-d/ (Surr)	96		8 - 714	2901/ 01/ 7153/	2901/ 01/ 79577	7			

Lab Sample ID: LCS 860-264432/2-A

Matrix: Water

Analysis Batch: 264437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 264432

	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1,4,-Tribromophenol (Surr)	97		3/ - 732						
1-Fluorobiphenyl (Surr)	93		43 - 732						
1-Fluorophenol (Surr)	97		79 - 712						
Nitrobenzene-d/ (Surr)	89		36 - 733						
p-Terphenyl-d74 (Surr)	89		46 - 732						
Phenol-d/ (Surr)	91		8 - 714						

Lab Sample ID: LCSD 860-264432/3-A

Matrix: Water

Analysis Batch: 264437

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 264432

	LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits						
1,4,-Tribromophenol (Surr)	9:		3/ - 732						
1-Fluorobiphenyl (Surr)	96		43 - 732						
1-Fluorophenol (Surr)	9/		79 - 712						
Nitrobenzene-d/ (Surr)	92		36 - 733						
p-Terphenyl-d74 (Surr)	93		46 - 732						
Phenol-d/ (Surr)	96		8 - 714						

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 860-262887/1-A

Matrix: Water

Analysis Batch: 262788

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 262887

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12 Range Hydrocarbons	ND		5.0	0.89	mg/L		09/18/25 12:01	09/18/25 16:37	1
>C12-C28 Range Hydrocarbons	ND		5.0	0.86	mg/L		09/18/25 12:01	09/18/25 16:37	1
>C28-C35 Range Hydrocarbons	ND		5.0	0.86	mg/L		09/18/25 12:01	09/18/25 16:37	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac		
7-Chlorooctane (Surr)	69		62 - 732	2907801/ 71527	2907801/ 7: 536	7			
o-Terphenyl (Surr)	82		62 - 732	2907801/ 71527	2907801/ 7: 536	7			

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: LCS 860-262887/2-A

Matrix: Water

Analysis Batch: 262788

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 262887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C6-C12 Range Hydrocarbons	100	98.6		mg/L		99	75 - 125
>C12-C28 Range Hydrocarbons	100	99.8		mg/L		100	75 - 125

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
7-Chlorooctane (Surr)	72:		62 - 732
o-Terphenyl (Surr)	726		62 - 732

Lab Sample ID: LCSD 860-262887/3-A

Matrix: Water

Analysis Batch: 262788

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 262887

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C6-C12 Range Hydrocarbons	100	100		mg/L		100	75 - 125	2	20
>C12-C28 Range Hydrocarbons	100	104		mg/L		104	75 - 125	4	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
7-Chlorooctane (Surr)	727		62 - 732
o-Terphenyl (Surr)	721		62 - 732

## Method: 6010D - Metals (ICP)

Lab Sample ID: MB 860-262503/1-A

Matrix: Water

Analysis Batch: 262671

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 262503

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020	0.0080	mg/L		09/17/25 09:29	09/17/25 18:20	1
Arsenic	ND		0.010	0.0065	mg/L		09/17/25 09:29	09/17/25 18:20	1
Barium	ND		0.010	0.0013	mg/L		09/17/25 09:29	09/17/25 18:20	1
Beryllium	ND		0.0040	0.0011	mg/L		09/17/25 09:29	09/17/25 18:20	1
Cadmium	ND		0.0050	0.00083	mg/L		09/17/25 09:29	09/17/25 18:20	1
Chromium	ND		0.010	0.0022	mg/L		09/17/25 09:29	09/17/25 18:20	1
Lead	ND		0.010	0.0037	mg/L		09/17/25 09:29	09/17/25 18:20	1
Nickel	ND		0.010	0.0018	mg/L		09/17/25 09:29	09/17/25 18:20	1
Selenium	ND		0.030	0.0093	mg/L		09/17/25 09:29	09/17/25 18:20	1
Silver	ND		0.020	0.0079	mg/L		09/17/25 09:29	09/17/25 18:20	1
Sulfur	ND		0.10	0.037	mg/L		09/17/25 09:29	09/17/25 18:20	1
Vanadium	ND		0.020	0.0052	mg/L		09/17/25 09:29	09/17/25 18:20	1
Vanadium Pentoxide	ND		0.030	0.030	mg/L		09/17/25 09:29	09/17/25 18:20	1

Lab Sample ID: LCS 860-262503/2-A

Matrix: Water

Analysis Batch: 262671

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 262503

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.00	0.938		mg/L		94	80 - 120
Arsenic	1.00	1.04		mg/L		104	80 - 120
Barium	1.00	1.04		mg/L		104	80 - 120

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 860-262503/2-A

Matrix: Water

Analysis Batch: 262671

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 262503

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
							Limits	
Beryllium	1.00	1.05		mg/L		105	80 - 120	
Cadmium	1.00	1.03		mg/L		103	80 - 120	
Chromium	1.00	1.05		mg/L		105	80 - 120	
Lead	1.00	1.06		mg/L		106	80 - 120	
Nickel	1.00	1.05		mg/L		105	80 - 120	
Selenium	1.00	1.09		mg/L		109	80 - 120	
Silver	0.500	0.513		mg/L		103	80 - 120	
Sulfur	5.00	5.23		mg/L		105	80 - 125	
Vanadium	1.00	1.04		mg/L		104	80 - 120	
Vanadium Pentoxide	1.79	1.86		mg/L		104	80 - 120	

Lab Sample ID: LCSD 860-262503/3-A

Matrix: Water

Analysis Batch: 262671

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 262503

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	
							Limits		RPD	Limit
Antimony	1.00	1.06		mg/L		106	80 - 120		12	20
Arsenic	1.00	1.04		mg/L		104	80 - 120		0	20
Barium	1.00	1.04		mg/L		104	80 - 120		0	20
Beryllium	1.00	1.05		mg/L		105	80 - 120		0	20
Cadmium	1.00	1.03		mg/L		103	80 - 120		0	20
Chromium	1.00	1.05		mg/L		105	80 - 120		0	20
Lead	1.00	1.06		mg/L		106	80 - 120		0	20
Nickel	1.00	1.05		mg/L		105	80 - 120		0	20
Selenium	1.00	1.10		mg/L		110	80 - 120		1	20
Silver	0.500	0.513		mg/L		103	80 - 120		0	20
Sulfur	5.00	5.22		mg/L		104	80 - 125		0	20
Vanadium	1.00	1.04		mg/L		104	80 - 120		0	20
Vanadium Pentoxide	1.79	1.86		mg/L		104	80 - 120		0	20

Lab Sample ID: 860-111460-F-3-B MS

Matrix: Water

Analysis Batch: 262671

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 262503

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
									Limits	
Antimony	ND	F2 F1	1.00	ND		mg/L		97	75 - 125	
Arsenic	ND		1.00	1.17		mg/L		117	75 - 125	
Barium	ND		1.00	1.04		mg/L		104	75 - 125	
Beryllium	ND		1.00	1.03		mg/L		103	75 - 125	
Cadmium	ND		1.00	0.955		mg/L		96	75 - 125	
Chromium	ND		1.00	0.960		mg/L		96	75 - 125	
Lead	ND		1.00	1.03		mg/L		103	75 - 125	
Nickel	ND		1.00	1.12		mg/L		102	75 - 125	
Selenium	ND		1.00	ND		mg/L		89	75 - 125	
Silver	ND		0.500	ND		mg/L		85	75 - 125	
Sulfur	2400		5.00	2470	4	mg/L		900	75 - 125	
Vanadium	ND		1.00	1.04		mg/L		104	75 - 125	
Vanadium Pentoxide	ND		1.79	1.86		mg/L		104	75 - 125	

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 860-111460-F-3-C MSD

Matrix: Water

Analysis Batch: 262671

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 262503

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND	F2 F1	1.00	ND	F2 F1	mg/L		70	75 - 125	32	20
Arsenic	ND		1.00	1.19		mg/L		119	75 - 125	1	20
Barium	ND		1.00	1.03		mg/L		103	75 - 125	0	20
Beryllium	ND		1.00	1.02		mg/L		102	75 - 125	1	20
Cadmium	ND		1.00	0.945		mg/L		95	75 - 125	1	20
Chromium	ND		1.00	0.975		mg/L		98	75 - 125	2	20
Lead	ND		1.00	0.845		mg/L		85	75 - 125	20	20
Nickel	ND		1.00	1.06		mg/L		96	75 - 125	6	20
Selenium	ND		1.00	ND		mg/L		84	75 - 125	5	20
Silver	ND		0.500	ND		mg/L		87	75 - 125	3	20
Sulfur	2400		5.00	2420	4	mg/L		-100	75 - 125	2	20
Vanadium	ND		1.00	1.01		mg/L		101	75 - 125	3	20
Vanadium Pentoxide	ND		1.79	1.81		mg/L		101	75 - 125	3	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-263118/10-A

Matrix: Water

Analysis Batch: 263328

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 263118

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000071	mg/L		09/19/25 09:48	09/19/25 15:46	1

Lab Sample ID: LCS 860-263118/11-A

Matrix: Water

Analysis Batch: 263328

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 263118

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00194		mg/L		97	80 - 120

Lab Sample ID: LCSD 860-263118/12-A

Matrix: Water

Analysis Batch: 263328

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 263118

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.00197		mg/L		98	80 - 120	2	20

Lab Sample ID: 860-111825-O-2-B MS

Matrix: Water

Analysis Batch: 263328

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 263118

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00200	0.00218		mg/L		109	75 - 125

Lab Sample ID: 860-111825-O-2-C MSD

Matrix: Water

Analysis Batch: 263328

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 263118

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00200	0.00215		mg/L		107	75 - 125	2	20

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 1010B - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: LCS 860-262882/1

Matrix: Water

Analysis Batch: 262882

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Flashpoint	126	132		Degrees F		105	90 - 110

Lab Sample ID: 870-39792-A-1 DU

Matrix: Water

Analysis Batch: 262882

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Flashpoint	>180		>180		Degrees F		NC	25

## Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 860-262531/1-A

Matrix: Water

Analysis Batch: 262747

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 262531

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		0.025	0.013	mg/L		09/17/25 10:15	09/17/25 20:19	1

Lab Sample ID: LCS 860-262531/2-A

Matrix: Water

Analysis Batch: 262747

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 262531

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Reactive	20.0	3.09		mg/L		15	5 - 40

Lab Sample ID: LCSD 860-262531/3-A

Matrix: Water

Analysis Batch: 262747

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 262531

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Reactive	20.0	3.03		mg/L		15	5 - 40	2	20

Lab Sample ID: 860-110702-A-1-E DU

Matrix: Water

Analysis Batch: 262747

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 262531

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Reactive	ND		ND		mg/L		NC	20

## Method: 9034 - Sulfide, Reactive

Lab Sample ID: MB 860-262702/1-A

Matrix: Water

Analysis Batch: 262860

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 262702

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND		6.3	1.3	mg/L		09/17/25 17:44	09/18/25 10:30	1

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# QC Sample Results

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Method: 9034 - Sulfide, Reactive (Continued)

Lab Sample ID: LCS 860-262702/2-A

Matrix: Water

Analysis Batch: 262860

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 262702

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide, Reactive	50.0	40.1		mg/L		80	30 - 120

Lab Sample ID: LCSD 860-262702/3-A

Matrix: Water

Analysis Batch: 262860

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 262702

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide, Reactive	50.0	40.1		mg/L		80	30 - 120	0	20

Lab Sample ID: 860-110702-A-1-G DU

Matrix: Water

Analysis Batch: 262860

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 262702

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide, Reactive	ND		ND		mg/L		NC	20

## Method: 9040C - pH

Lab Sample ID: 860-111617-1 DU

Matrix: Water

Analysis Batch: 263893

Client Sample ID: Spent Diglycolamine

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	11.3	HF	11.3		SU		0	20
Temperature	19.9	HF	19.9		Degrees C		0	20
Corrosivity	11.3	HF	11.3		SU		0	



# QC Association Summary

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## GC/MS VOA

### Analysis Batch: 263344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	8260C	
MB 860-263344/10	Method Blank	Total/NA	Water	8260C	
LCS 860-263344/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 860-263344/4	Lab Control Sample Dup	Total/NA	Water	8260C	
880-62669-B-4 MS	Matrix Spike	Total/NA	Water	8260C	
880-62669-C-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

## GC/MS Semi VOA

### Analysis Batch: 263528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-263589/1-A	Method Blank	Total/NA	Water	8270E	263589
LCS 860-263589/2-A	Lab Control Sample	Total/NA	Water	8270E	263589
LCSD 860-263589/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	263589

### Prep Batch: 263589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	3511	
MB 860-263589/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-263589/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-263589/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

### Analysis Batch: 264162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	8270E	263589

### Prep Batch: 264432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1 - RE	Spent Diglycolamine	Total/NA	Water	3511	
MB 860-264432/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-264432/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-264432/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

### Analysis Batch: 264437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-264432/1-A	Method Blank	Total/NA	Water	8270E	264432
LCS 860-264432/2-A	Lab Control Sample	Total/NA	Water	8270E	264432
LCSD 860-264432/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	264432

### Analysis Batch: 264852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1 - RE	Spent Diglycolamine	Total/NA	Water	8270E	264432

## GC Semi VOA

### Analysis Batch: 262788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-262887/1-A	Method Blank	Total/NA	Water	TX 1005	262887
LCS 860-262887/2-A	Lab Control Sample	Total/NA	Water	TX 1005	262887
LCSD 860-262887/3-A	Lab Control Sample Dup	Total/NA	Water	TX 1005	262887

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# QC Association Summary

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## GC Semi VOA

### Prep Batch: 262887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	TX_1005_W_Pr ep	
MB 860-262887/1-A	Method Blank	Total/NA	Water	TX_1005_W_Pr ep	
LCS 860-262887/2-A	Lab Control Sample	Total/NA	Water	TX_1005_W_Pr ep	
LCSD 860-262887/3-A	Lab Control Sample Dup	Total/NA	Water	TX_1005_W_Pr ep	

### Analysis Batch: 263093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	TX 1005	262887

### Analysis Batch: 263512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	TX 1005	

## Metals

### Prep Batch: 262503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	3010A	
MB 860-262503/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-262503/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-262503/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
860-111460-F-3-B MS	Matrix Spike	Total/NA	Water	3010A	
860-111460-F-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	

### Analysis Batch: 262671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	6010D	262503
MB 860-262503/1-A	Method Blank	Total/NA	Water	6010D	262503
LCS 860-262503/2-A	Lab Control Sample	Total/NA	Water	6010D	262503
LCSD 860-262503/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	262503
860-111460-F-3-B MS	Matrix Spike	Total/NA	Water	6010D	262503
860-111460-F-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010D	262503

### Prep Batch: 263118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	7470A	
MB 860-263118/10-A	Method Blank	Total/NA	Water	7470A	
LCS 860-263118/11-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 860-263118/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	
860-111825-O-2-B MS	Matrix Spike	Total/NA	Water	7470A	
860-111825-O-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 263328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	7470A	263118
MB 860-263118/10-A	Method Blank	Total/NA	Water	7470A	263118
LCS 860-263118/11-A	Lab Control Sample	Total/NA	Water	7470A	263118
LCSD 860-263118/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	263118

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# QC Association Summary

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

## Metals (Continued)

### Analysis Batch: 263328 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111825-O-2-B MS	Matrix Spike	Total/NA	Water	7470A	263118
860-111825-O-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	263118

## General Chemistry

### Prep Batch: 262531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	7.3.3	
MB 860-262531/1-A	Method Blank	Total/NA	Water	7.3.3	
LCS 860-262531/2-A	Lab Control Sample	Total/NA	Water	7.3.3	
LCSD 860-262531/3-A	Lab Control Sample Dup	Total/NA	Water	7.3.3	
860-110702-A-1-E DU	Duplicate	Total/NA	Water	7.3.3	

### Prep Batch: 262702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	7.3.4	
MB 860-262702/1-A	Method Blank	Total/NA	Water	7.3.4	
LCS 860-262702/2-A	Lab Control Sample	Total/NA	Water	7.3.4	
LCSD 860-262702/3-A	Lab Control Sample Dup	Total/NA	Water	7.3.4	
860-110702-A-1-G DU	Duplicate	Total/NA	Water	7.3.4	

### Analysis Batch: 262747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	9012	262531
MB 860-262531/1-A	Method Blank	Total/NA	Water	9012	262531
LCS 860-262531/2-A	Lab Control Sample	Total/NA	Water	9012	262531
LCSD 860-262531/3-A	Lab Control Sample Dup	Total/NA	Water	9012	262531
860-110702-A-1-E DU	Duplicate	Total/NA	Water	9012	262531

### Analysis Batch: 262860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	9034	262702
MB 860-262702/1-A	Method Blank	Total/NA	Water	9034	262702
LCS 860-262702/2-A	Lab Control Sample	Total/NA	Water	9034	262702
LCSD 860-262702/3-A	Lab Control Sample Dup	Total/NA	Water	9034	262702
860-110702-A-1-G DU	Duplicate	Total/NA	Water	9034	262702

### Analysis Batch: 262882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	1010B	
LCS 860-262882/1	Lab Control Sample	Total/NA	Water	1010B	
870-39792-A-1 DU	Duplicate	Total/NA	Water	1010B	

### Analysis Batch: 263893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-111617-1	Spent Diglycolamine	Total/NA	Water	9040C	
860-111617-1 DU	Spent Diglycolamine	Total/NA	Water	9040C	

Eurofins Houston

# Lab Chronicle

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

**Client Sample ID: Spent Diglycolamine**

**Lab Sample ID: 860-111617-1**

**Date Collected: 09/15/25 08:50**

**Matrix: Water**

**Date Received: 09/15/25 13:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	5 mL	5 mL	263344	09/20/25 17:52	NA	EET HOU
Total/NA	Prep	3511	RE		70 mL	4 mL	264432	09/25/25 12:35	TH	EET HOU
Total/NA	Analysis	8270E	RE	1	1 mL	1 mL	264852	09/26/25 20:24	T1S	EET HOU
Total/NA	Prep	3511			69.4 mL	4 mL	263589	09/22/25 13:50	TH	EET HOU
Total/NA	Analysis	8270E		1	1 mL	1 mL	264162	09/24/25 22:48	PXS	EET HOU
Total/NA	Prep	TX_1005_W_Prep			31.7 mL	3 mL	262887	09/18/25 12:01	IS	EET HOU
Total/NA	Analysis	TX 1005		1			263093	09/19/25 22:09	MS	EET HOU
Total/NA	Analysis	TX 1005		1			263512	09/19/25 22:09	RJT	EET HOU
Total/NA	Prep	3010A			10 mL	50 mL	262503	09/17/25 09:29	MD	EET HOU
Total/NA	Analysis	6010D		1			262671	09/17/25 19:07	JDM	EET HOU
Total/NA	Prep	7470A			1 mL	5 mL	263118	09/19/25 09:48	AGR	EET HOU
Total/NA	Analysis	7470A		1			263328	09/19/25 16:47	SHZ	EET HOU
Total/NA	Analysis	1010B		1			262882	09/18/25 14:33	MK	EET HOU
Total/NA	Prep	7.3.3			10 g	50 mL	262531	09/17/25 10:15	AK	EET HOU
Total/NA	Analysis	9012		1	25 mL	25 mL	262747	09/17/25 20:22	ALL	EET HOU
Total/NA	Prep	7.3.4			10 mL	50 mL	262702	09/17/25 17:44	AK	EET HOU
Total/NA	Analysis	9034		1	40 mL	50 mL	262860	09/18/25 10:30	SCI	EET HOU
Total/NA	Analysis	9040C		1			263893	09/23/25 15:28	VS	EET HOU

## Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

## Accreditation/Certification Summary

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

### Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	06-30-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010D	3010A	Water	Sulfur
6010D	3010A	Water	Vanadium Pentoxide
8260C		Water	1,3-Butadiene
8260C		Water	Hexane
9012	7.3.3	Water	Cyanide, Reactive
9034	7.3.4	Water	Sulfide, Reactive
9040C		Water	Corrosivity
9040C		Water	Temperature

## Method Summary

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270E	Semivolatile Organic Compounds (GC-MS/MS)	SW846	EET HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	EET HOU
6010D	Metals (ICP)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
1010B	Ignitability, Pensky-Martens Closed-Cup Method	SW846	EET HOU
9012	Cyanide, Reactive	SW846	EET HOU
9034	Sulfide, Reactive	SW846	EET HOU
9040C	pH	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
7.3.3	Cyanide, Reactive	SW846	EET HOU
7.3.4	Sulfide, Reactive	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU
TX_1005_W_Prep	Extraction - Texas Total petroleum Hyrdocarbons	TCEQ	EET HOU

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

### Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Sample Summary

Project/Site: Spent Diglycolamine

Job ID: 860-111617-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
860-111617-1	Spent Diglycolamine	Water	09/15/25 08:50	09/15/25 13:00	Texas

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

## Login Sample Receipt Checklist

Job Number: 860-111617-1

Login Number: 111617

List Number: 1

Creator: Rubio, Yuri

List Source: Eurofins Houston

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	