



H₂S Scavenger T Gold

HYDROGEN SULFIDE SCAVENGER

Overview

TETRA H₂S Scavenger T Gold is an amine based H₂S scavenger that has been approved by Cefas for use in the North Sea with completion and drilling fluids.

Features and Benefits

- Soluble in most commonly used completion brines and drilling fluids.
- Reaction with hydrogen sulfide is non-reversible.
- The reaction product of H₂S Scavenger T Gold and hydrogen sulfide is soluble in water and brines.
- Cefas approved for North Sea use.
- Scavenges hydrogen sulfide quicker than solid scavengers.
- Effective at scavenging free sulfide from brines ranging in density from 8.5 to 14.2 ppg.
- Not based on heavy metals.

Applicable Information

Hydrogen sulfide (H₂S) occurs naturally and is frequently encountered in oil & gas operations. H₂S is soluble in water, clear brine fluids and hydrocarbons.

Operators face several major issues when completing or producing wells containing H₂S, including safety, environmental and regulatory requirements. The use of liquid H₂S scavengers is the most common method for the removal of H₂S from completion and drilling fluids.

TETRA H₂S Scavenger T Gold may also be used for scavenging free sulfides to prevent the formation of H₂S.

Treatment dosage is based upon H₂S concentration, salinity, temperature among other factors.

Technical Specifications

Physical Properties

Appearance	Clear to pale amber
Odor	Amine
Density	1.018 g/cm ³ @ 20°C
Flash Point °C	90°C
pH	>9
Water Solubility	Soluble

Recommended Treatment

Dependent on density of brine and amount of H₂S present. Treatments generally range from 0.5 - 50 gal/100 bbl for densities between 8.5 and 14.2 ppg and H₂S content from 5 - 100 ppm.

Note: Fluids with densities and/or H₂S levels outside of the provided matrix will require specific testing.

When possible, the treatment should be verified with laboratory testing of the proposed completion or drilling fluid formulation. Consult a TETRA representative to discuss specific applications.

Safety and Handling

Non-hazardous material. Ensure material is stored in area with adequate ventilation. Avoid skin and eye contact, inhalation, or ingestion. For eye contact, flush with large quantities of water. For skin contact, wash with soap and large quantities of water. Refer to Safety Data Sheet for specific details.



H₂S Scavenger T Gold Treatment Recommendation in gal/100 bbl of fluid

Fluid Density (ppg)	H ₂ S Conc (ppm)																			
	5	10	15	20	25	30	35	40	45	50	60	65	70	75	80	85	90	95	100	
8.5	3.79	5.06	6.32	7.58	10.11	12.64	15.17	17.50	19.83	22.17	25.67	29.17	32.67	36.17	39.67	43.17	46.67	50.17	53.67	57.17
8.6	3.69	4.93	6.16	7.39	9.85	12.32	14.78	17.11	19.45	21.78	25.28	28.78	32.28	35.78	39.28	42.78	46.28	49.78	53.28	56.78
8.7	3.60	4.80	6.00	7.19	9.59	11.99	14.39	16.72	19.06	21.39	24.89	28.39	31.89	35.39	38.89	42.39	45.89	49.39	52.89	56.39
8.8	3.50	4.67	5.83	7.00	9.33	11.67	14.00	16.33	18.67	21.00	24.50	28.00	31.50	35.00	38.50	42.00	45.50	49.00	52.50	56.00
8.9	3.40	4.54	5.67	6.81	9.07	11.34	13.61	15.94	18.28	20.61	24.11	27.61	31.11	34.61	38.11	41.61	45.11	48.61	52.11	55.61
9.0	3.31	4.41	5.51	6.61	8.82	11.02	13.22	15.56	17.89	20.22	23.72	27.22	30.72	34.22	37.72	41.22	44.72	48.22	51.72	55.22
9.1	3.21	4.28	5.35	6.42	8.56	10.70	12.83	15.17	17.50	19.83	23.33	26.83	30.33	33.83	37.33	40.83	44.33	47.83	51.33	54.83
9.2	3.11	4.15	5.19	6.22	8.30	10.37	12.44	14.78	17.11	19.44	22.94	26.44	29.94	33.44	36.94	40.44	43.94	47.44	50.94	54.44
9.3	3.02	4.02	5.02	6.03	8.04	10.05	12.05	14.39	16.72	19.05	22.55	26.05	29.55	33.05	36.55	40.05	43.55	47.05	50.55	54.05
9.4	2.92	3.89	4.86	5.84	7.78	9.72	11.66	14.00	16.33	18.66	22.16	25.66	29.16	32.66	36.16	39.66	43.16	46.66	50.16	53.66
9.5	2.82	3.76	4.70	5.64	7.52	9.40	11.27	13.61	15.94	18.27	21.77	25.27	28.77	32.27	35.77	39.27	42.77	46.27	49.77	53.27
9.6	2.72	3.63	4.54	5.45	7.26	9.08	10.88	13.22	15.56	17.88	21.38	24.88	28.38	31.88	35.38	38.88	42.38	45.88	49.38	52.88
9.7	2.63	3.50	4.38	5.25	7.00	8.75	10.49	12.83	15.17	17.49	20.99	24.49	27.99	31.49	34.99	38.49	41.99	45.49	48.99	52.49
9.8	2.53	3.37	4.21	5.06	6.74	8.43	10.10	12.44	14.78	17.10	20.60	24.10	27.60	31.10	34.60	38.10	41.60	45.10	48.60	52.10
9.9	2.43	3.24	4.05	4.87	6.48	8.10	9.71	12.05	14.39	16.71	20.21	23.71	27.21	30.71	34.21	37.71	41.21	44.71	48.21	51.71
10.0	2.34	3.11	3.89	4.67	6.23	7.78	9.32	11.67	14.00	16.32	19.82	23.32	26.82	30.32	33.82	37.32	40.82	44.32	47.82	51.32
10.1	2.24	2.98	3.73	4.48	5.97	7.46	8.93	11.28	13.61	15.93	19.43	22.93	26.43	29.93	33.43	36.93	40.43	43.93	47.43	50.93
10.2	2.14	2.85	3.57	4.28	5.71	7.13	8.54	10.89	13.22	15.54	19.04	22.54	26.04	29.54	33.04	36.54	40.04	43.54	47.04	50.54
10.3	2.05	2.72	3.40	4.09	5.45	6.81	8.15	10.50	12.83	15.15	18.65	22.15	25.65	29.15	32.65	36.15	39.65	43.15	46.65	50.15
10.4	1.95	2.59	3.24	3.90	5.19	6.48	7.76	10.11	12.44	14.76	18.26	21.76	25.26	28.76	32.26	35.76	39.26	42.76	46.26	49.76
10.5	1.85	2.46	3.08	3.70	4.93	6.16	7.37	9.72	12.05	14.37	17.87	21.37	24.87	28.37	31.87	35.37	38.87	42.37	45.87	49.37
10.6	1.75	2.33	2.92	3.50	4.67	5.83	7.00	9.33	11.67	14.00	17.50	21.00	24.50	28.00	31.50	35.00	38.50	42.00	45.50	49.00
10.7	1.70	2.27	2.84	3.40	4.54	5.67	6.81	9.07	11.35	13.61	17.11	20.61	24.11	27.61	31.11	34.61	38.11	41.61	45.11	48.61
10.8	1.65	2.20	2.76	3.31	4.41	5.51	6.61	8.82	11.03	13.22	16.72	20.22	23.72	27.22	30.72	34.22	37.72	41.22	44.72	48.22
10.9	1.60	2.14	2.67	3.21	4.28	5.35	6.42	8.56	10.70	12.83	16.33	19.83	23.33	26.83	30.33	33.83	37.33	40.83	44.33	47.83
11.0	1.55	2.07	2.59	3.11	4.15	5.19	6.22	8.30	10.36	12.44	15.94	19.44	22.94	26.44	29.94	33.44	36.94	40.44	43.94	47.44
11.1	1.51	2.01	2.51	3.02	4.02	5.02	6.03	8.04	10.06	12.05	15.55	19.05	22.55	26.05	29.55	33.05	36.55	40.05	43.55	47.05
11.2	1.46	1.94	2.43	2.92	3.89	4.86	5.84	7.78	9.74	11.66	15.16	18.66	22.16	25.66	29.16	32.66	36.16	39.66	43.16	46.66
11.3	1.41	1.88	2.35	2.82	3.76	4.70	5.64	7.52	9.42	11.27	14.77	18.27	21.77	25.27	28.77	32.27	35.77	39.27	42.77	46.27
11.4	1.36	1.81	2.27	2.72	3.63	4.54	5.45	7.26	9.10	10.88	14.38	17.88	21.38	24.88	28.38	31.88	35.38	38.88	42.38	45.88
11.5	1.31	1.75	2.19	2.63	3.50	4.38	5.25	7.00	8.78	10.49	13.99	17.49	20.99	24.49	27.99	31.49	34.99	38.49	41.99	45.49
11.6	1.26	1.68	2.11	2.53	3.37	4.21	5.06	6.74	8.46	10.10	13.60	17.10	20.60	24.10	27.60	31.10	34.60	38.10	41.60	45.10
11.7	1.21	1.62	2.03	2.43	3.24	4.05	4.87	6.48	8.14	9.71	13.21	16.71	20.21	23.71	27.21	30.71	34.21	37.71	41.21	44.71
11.8	1.16	1.55	1.95	2.34	3.11	3.89	4.67	6.23	7.82	9.32	12.82	16.32	19.82	23.32	26.82	30.32	33.82	37.32	40.82	44.32
11.9	1.11	1.49	1.86	2.24	2.98	3.73	4.48	5.97	7.49	8.99	12.43	15.93	19.43	22.93	26.43	29.93	33.43	36.93	40.43	43.93
12.0	1.06	1.42	1.78	2.15	2.85	3.57	4.28	5.71	7.17	8.54	12.04	15.54	19.04	22.54	26.04	29.54	33.04	36.54	40.04	43.54
12.1	1.02	1.36	1.70	2.05	2.72	3.40	4.09	5.45	6.85	8.15	11.65	15.15	18.65	22.15	25.65	29.15	32.65	36.15	39.65	43.15
12.2	0.97	1.29	1.62	1.95	2.59	3.24	3.90	5.19	6.53	7.76	11.26	14.76	18.26	21.76	25.26	28.76	32.26	35.76	39.26	42.76
12.3	0.92	1.23	1.54	1.85	2.46	3.08	3.70	4.93	6.21	7.37	10.87	14.37	17.87	21.37	24.87	28.37	31.87	35.37	38.87	42.37
12.4	0.88	1.17	1.46	1.75	2.33	2.92	3.50	4.67	5.88	7.00	10.50	14.00	17.50	21.00	24.50	28.00	31.50	35.00	38.50	42.00
12.5	0.85	1.14	1.42	1.70	2.27	2.84	3.40	4.54	5.67	6.81	10.21	13.61	17.11	20.61	24.11	27.61	31.11	34.61	38.11	41.61
12.6	0.83	1.10	1.38	1.65	2.20	2.76	3.31	4.41	5.51	6.61	9.92	13.22	16.72	20.22	23.72	27.22	30.72	34.22	37.72	41.22
12.7	0.80	1.07	1.34	1.60	2.14	2.67	3.21	4.28	5.35	6.42	9.62	12.83	16.33	19.83	23.33	26.83	30.33	33.83	37.33	40.83
12.8	0.78	1.04	1.30	1.55	2.07	2.59	3.11	4.15	5.19	6.22	9.33	12.44	15.94	19.44	22.94	26.44	29.94	33.44	36.94	40.44
12.9	0.76	1.01	1.26	1.51	2.01	2.51	3.02	4.02	5.02	6.03	9.04	12.05	15.55	19.05	22.55	26.05	29.55	33.05	36.55	40.05
13.0	0.73	0.98	1.22	1.46	1.94	2.43	2.92	3.89	4.86	5.84	8.75	11.66	15.16	18.66	22.16	25.66	29.16	32.66	36.16	39.66
13.1	0.71	0.94	1.18	1.41	1.88	2.35	2.82	3.76	4.70	5.64	8.46	11.27	14.77	18.27	21.77	25.27	28.77	32.27	35.77	39.27
13.2	0.68	0.91	1.14	1.36	1.81	2.27	2.72	3.63	4.54	5.45	8.16	10.88	14.38	17.88	21.38	24.88	28.38	31.88	35.38	38.88
13.3	0.66	0.88	1.10	1.31	1.75	2.19	2.63	3.50	4.38	5.25	7.87	10.49	13.99	17.49	20.99	24.49	27.99	31.49	34.99	38.49
13.4	0.64	0.85	1.06	1.26	1.68	2.11	2.53	3.37	4.21	5.06	7.58	10.10	13.60	17.10	20.60	24.10	27.60	31.10	34.60	38.10
13.5	0.61	0.82	1.02	1.21	1.62	2.03	2.43	3.24	4.05	4.87	7.29	9.71	13.21	16.71	20.21	23.71	27.21	30.71	34.21	37.71
13.6	0.59	0.78	0.98	1.16	1.55	1.95	2.34	3.11	3.88	4.67	7.00	9.32	12.82	16.32	19.82	23.32	26.82	30.32	33.82	37.32
13.7	0.56	0.75	0.94	1.11	1.49	1.86	2.24	2.98	3.73	4.48	6.70	8.93	12.43	15.93	19.43	22.93	26.43	29.93	33.43	36.93
13.8	0.54	0.72	0.90	1.06	1.42	1.78	2.14	2.85	3.57	4.28	6.41	8.54	12.04	15.54	19.04	22.54	26.04	29.54	33.04	36.54
13.9	0.52	0.69	0.86	1.02	1.36	1.70	2.05	2.72	3.40	4.09	6.12	8.15	11.65	15.15	18.65	22.15	25.65	29.15	32.65	36.15
14.0	0.49	0.66	0.82	0.97	1.29	1.62	1.95	2.59	3.24	3.90	5.83	7.76	11.26	14.76	18.26	21.76	25.26	28.76	32.26	35.76
14.1	0.47	0.62	0.78	0.92	1.23	1.54	1.85	2.46	3.08	3.70	5.54	7.37	10.87	14.37	17.87	21.37	24.87	28.37	31.87	35.37
14.2	0.44	0.58	0.73	0.88	1.17	1.46	1.75	2.33	2.92	3.50	5.25	7.00	10.50	14.00	17.50	21.00	24.50	28.00	31.50	35.00

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