



The OUTSIDER™—the finest pressure-treated glulam beams and columns engineered for building outdoors

The Outsider beams and columns are made of **Southern Yellow Pine** and then **pressure treated** to resist rot and decay. Manufactured to match standard framing widths and depths make the Outsider ideal for decks, trellises, porches and balconies.

The OUTSIDER is treated with Penta.

The Outsider is treated with **Penta**, which contains solubized pentachlorophenol. Penta provides resistance to insects, decay, mold, mildew and bacterial growths. Pressure treatment of **The Outsider** is clean, non-swelling, non-leaching and non-corrosive.

OUTSIDER Beams

Beams are manufactured to a performance level of 24F/1.8E with a balanced layup, straight with no designated top or bottom, for easy installation. And of course, **The Outsider** is sized to match **standard framing widths and depths**. They may also be used in both “wet-use” and “dry-use” applications.

Beams Are Available in Common Sizes: Widths: 3-1/2” , 5-1/4” , 5-7/16” and 5-1/2”
Depths: 9-1/4” , 9-1/2” , 11-1/4” , 11-7/8” , 14” , 16” and 18”

OUTSIDER Columns

Columns are manufactured to a combination #50/1.9E lay up and are ideal anywhere a post is needed for your application. Columns placed on a pier block are considered to be in a “dry-use” application, provided it never reached 16% or greater moisture content. The attached Table 1 should be used for these values. However, columns that have direct ground contact or are imbedded constitute a “wet-use” application and **Table 2** applies.

Columns Are Available in Common Sizes:

Widths: 3-1/2”, 5-7/16”, 5-1/2” and 7”

Depths: 3-1/2”, 5-1/2” and 7”

Recommended Applications

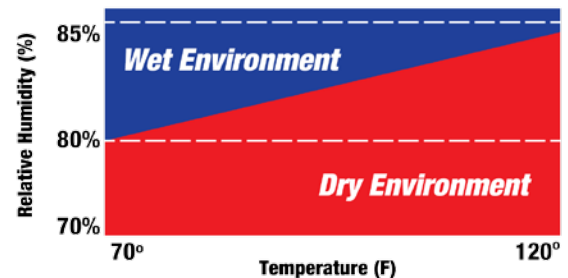
The Outsider is the best engineered wood beam for building outdoors. Wet conditions are no problem. Moisture and decay-resistance helps protect the areas around hardware connections; however, field fabrication and trimming, hole drilling, and minor surface damage should be re-sealed with Penta (available at your local building supply store). Outsider beams and columns should not be used in marine applications such as docks, marinas and standing water conditions.

What are “Wet-use” and “Dry-use”?

Glulam products are often intermittently exposed to the elements. This is typically followed by drying. Even though the beam or column is exposed to the elements, it could be considered to be in a “dry-use” condition provided it never reached 16% or greater moisture content. In this situation, **Table 1** capacity charts may be used.

An application is considered “wet-use” if at anytime the moisture content reaches 16% or greater (see the chart below). These conditions necessitate the use of the **Table 2** capacity chart. Due to The Outsider’s exceptional strength and quality, use of “wet-use” tables (**Table 2**) is the most beneficial for more conservative design assurance.

To retain an open-air moisture content of at least 16% (wet-use application), a beam must stay in a wet environment year-round, as illustrated at right.



BOOZER BEAM HOLDS UP!

**25 year
warranty!**

The Original BoozerBeam - 1.7E, 1.8E, 1.9E • 2.1E High Strength BoozerBeam
1.7E, 1.9E Garage Door Headers • 1.6E Window and Door Headers
1.7E, 1.9E Structural Columns • The Outsider Pressure Treated Glulam Beams



Treated 2400Fb-1.8E-300Fv Southern Pine Glulam Roof Beams (lb/ft) – Snow Load (DRY USE)

Load Duration Factor = 1.25, Fbx = 2,400 psi, Fvx = 300 psi, Ex = 1,800,000 psi

3-1/2-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	1551	990	685	440	292	203	145	107	81	62	---	---	---	---	---	---	---
9-1/2	1637	1044	723	477	317	220	158	117	88	67	52	---	---	---	---	---	---
11-1/4	2297	1466	1015	743	530	370	267	198	150	116	91	72	57	---	---	---	---
11-7/8	2560	1634	1132	829	625	436	315	234	178	137	108	86	69	55	---	---	---
14	3560	2274	1575	1154	880	693	521	388	296	230	182	145	118	96	79	65	54
16	4652	2972	2059	1509	1152	907	732	584	446	348	276	221	180	148	122	102	85
18	5890	3764	2609	1912	1460	1150	929	762	635	500	397	320	260	214	178	149	125

5-1/4-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	2327	1485	1027	660	438	304	218	161	121	92	71	56	---	---	---	---	---
9-1/2	2455	1566	1084	716	475	330	237	175	132	101	78	61	---	---	---	---	---
11-1/4	3445	2199	1523	1115	796	554	400	297	225	174	136	108	86	69	56	---	---
11-7/8	3840	2452	1697	1243	938	654	472	351	266	206	162	128	103	83	68	55	---
14	5340	3411	2363	1731	1321	1038	781	582	444	345	273	218	176	144	118	98	81
16	6978	4458	3089	2264	1725	1350	1083	876	669	522	413	332	270	221	183	152	127
18	8835	5645	3913	2865	2173	1701	1366	1119	932	750	595	479	391	322	267	223	188

5-7/16-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	2410	1538	1064	684	454	315	226	167	125	96	74	58	---	---	---	---	---
9-1/2	2542	1622	1123	742	492	342	246	181	136	104	81	63	---	---	---	---	---
11-1/4	3568	2278	1577	1154	824	574	414	307	233	180	141	112	89	72	58	---	---
11-7/8	3977	2539	1758	1287	971	677	489	363	276	213	168	133	107	86	70	57	---
14	5531	3533	2447	1793	1368	1073	809	603	460	357	282	226	183	149	122	101	84
16	7227	4617	3200	2345	1783	1396	1120	907	693	541	428	344	279	229	190	158	132
18	9150	5847	4053	2962	2246	1759	1412	1157	964	776	617	497	405	333	277	231	195

7-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	3103	1980	1370	880	584	405	291	214	161	123	95	74	58	---	---	---	---
9-1/2	3273	2089	1445	955	634	440	316	233	176	134	104	81	64	51	---	---	---
11-1/4	4594	2933	2030	1486	1061	739	533	396	300	232	181	144	115	92	74	60	---
11-7/8	5120	3269	2263	1657	1250	872	630	468	355	275	216	171	137	111	90	73	60
14	7120	4548	3150	2301	1744	1364	1042	776	592	460	363	291	235	192	157	130	108
16	9304	5944	4111	2989	2266	1774	1424	1166	893	696	551	443	360	295	244	203	170
18	11780	7527	5176	3765	2855	2236	1795	1471	1225	1000	794	639	521	429	356	298	251

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = **dry**.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 37.5 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



Treated 2400Fb-1.8E-300Fv Southern Pine Glulam Roof Beams (lb/ft) – Snow Load (WET USE)

Load Duration Factor = 1.25, Fbx = 2,400 x 0.8 psi, Fvx = 300 x 0.875 psi, Ex = 1,800,000 x 0.833 psi

3-1/2-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	1236	787	543	362	239	164	117	85	62	---	---	---	---	---	---	---	---
9-1/2	1304	830	573	393	259	178	127	92	68	51	---	---	---	---	---	---	---
11-1/4	1831	1167	806	588	436	302	216	159	119	91	70	54	---	---	---	---	---
11-7/8	2041	1301	899	656	499	357	256	189	142	108	84	65	51	---	---	---	---
14	2841	1812	1253	916	697	547	427	316	240	185	144	114	91	73	59	---	---
16	3713	2369	1639	1199	913	717	577	473	364	282	222	176	142	115	94	77	63
18	4702	3001	2077	1520	1159	911	733	600	498	407	322	257	208	170	139	115	95

5-1/4-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	1854	1180	814	543	358	246	175	127	94	70	53	---	---	---	---	---	---
9-1/2	1956	1245	859	589	389	268	190	138	103	77	58	---	---	---	---	---	---
11-1/4	2747	1751	1209	883	654	453	325	239	179	136	105	81	63	---	---	---	---
11-7/8	3062	1952	1348	985	749	536	384	283	213	163	126	98	77	60	---	---	---
14	4261	2717	1879	1373	1045	819	640	474	359	277	216	171	136	109	88	71	57
16	5570	3554	2459	1798	1367	1067	854	697	546	423	332	265	213	172	140	115	94
18	7053	4502	3116	2277	1724	1347	1078	881	732	611	482	386	312	254	209	172	143

5-7/16-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	1920	1222	843	562	371	255	181	131	97	72	54	---	---	---	---	---	---
9-1/2	2026	1290	890	610	403	277	197	143	106	80	60	---	---	---	---	---	---
11-1/4	2845	1813	1252	914	678	469	336	247	185	141	108	84	65	51	---	---	---
11-7/8	3172	2021	1397	1020	775	555	398	293	221	168	130	102	80	62	---	---	---
14	4413	2815	1946	1423	1083	847	663	491	372	287	224	177	141	113	91	73	59
16	5769	3681	2546	1862	1413	1103	883	721	565	438	344	274	220	178	145	119	97
18	7305	4663	3227	2355	1782	1392	1115	911	756	633	499	399	323	263	216	179	148

7-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	2472	1574	1086	724	477	328	233	169	125	93	70	53	---	---	---	---	---
9-1/2	2608	1661	1146	786	518	357	254	185	137	102	77	58	---	---	---	---	---
11-1/4	3663	2334	1612	1177	872	604	433	318	238	182	140	108	84	65	51	---	---
11-7/8	4083	2602	1798	1313	997	714	512	378	284	217	168	131	102	80	63	---	---
14	5681	3623	2505	1826	1380	1076	854	632	479	369	289	228	182	146	117	94	76
16	7426	4738	3271	2374	1796	1402	1122	916	727	564	443	353	284	230	187	153	125
18	9405	6003	4122	2992	2265	1769	1417	1157	961	808	643	514	416	339	278	230	191

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = **wet**.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 52 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



Treated 2400Fb-1.8E-300Fv Southern Pine Glulam Roof Beams (lb/ft) – Snow Load (DRY USE)

Load Duration Factor = 1.15, Fbx = 2,400 psi, Fvx = 300 psi, Ex = 1,800,000 psi

3-1/2-INCH WIDTH										SPAN (ft)								
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	1427	910	629	440	292	203	145	107	81	62	---	---	---	---	---	---	---	
9-1/2	1505	960	664	477	317	220	158	117	88	67	52	---	---	---	---	---	---	
11-1/4	2112	1348	933	683	520	370	267	198	150	116	91	72	57	---	---	---	---	
11-7/8	2354	1503	1040	761	580	436	315	234	178	137	108	86	69	55	---	---	---	
14	3274	2091	1448	1061	809	637	513	388	296	230	182	145	118	96	79	65	54	
16	4279	2733	1894	1387	1059	833	672	553	446	348	276	221	180	148	122	102	85	
18	5417	3461	2399	1758	1342	1057	853	700	583	492	397	320	260	214	178	149	125	

5-1/4-INCH WIDTH										SPAN (ft)								
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	2140	1365	944	660	438	304	218	161	121	92	71	56	---	---	---	---	---	
9-1/2	2257	1440	996	716	475	330	237	175	132	101	78	61	---	---	---	---	---	
11-1/4	3168	2022	1400	1024	781	554	400	297	225	174	136	108	86	69	56	---	---	
11-7/8	3531	2254	1560	1142	871	654	472	351	266	206	162	128	103	83	68	55	---	
14	4911	3136	2172	1591	1214	954	765	582	444	345	273	218	176	144	118	98	81	
16	6418	4100	2840	2081	1585	1240	995	815	669	522	413	332	270	221	183	152	127	
18	8126	5192	3598	2634	1997	1563	1255	1028	856	723	595	479	391	322	267	223	188	

5-7/16-INCH WIDTH																	
SPAN (ft)																	
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	2216	1414	978	684	454	315	226	167	125	96	74	58	---	---	---	---	---
9-1/2	2338	1491	1032	742	492	342	246	181	136	104	81	63	---	---	---	---	---
11-1/4	3282	2094	1450	1061	808	574	414	307	233	180	141	112	89	72	58	---	---
11-7/8	3657	2335	1616	1183	902	677	489	363	276	213	168	133	107	86	70	57	---
14	5087	3248	2250	1648	1257	986	791	603	460	357	282	226	183	149	122	101	84
16	6647	4246	2942	2155	1639	1282	1029	842	693	541	428	344	279	229	190	158	132
18	8416	5377	3726	2723	2065	1616	1297	1063	885	747	617	497	405	333	277	231	195

7-INCH WIDTH						SPAN (ft)												
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	2853	1820	1259	880	584	405	291	214	161	123	95	74	58	---	---	---	---	
9-1/2	3010	1920	1328	955	634	440	316	233	176	134	104	81	64	51	---	---	---	
11-1/4	4225	2696	1866	1366	1041	739	533	396	300	232	181	144	115	92	74	60	---	
11-7/8	4708	3005	2081	1523	1159	872	630	468	355	275	216	171	137	111	90	73	60	
14	6549	4182	2896	2115	1602	1253	1005	776	592	460	363	291	235	192	157	130	108	
16	8558	5466	3780	2748	2083	1630	1307	1070	891	696	551	443	360	295	244	203	170	
18	10835	6922	4759	3461	2624	2054	1649	1350	1124	949	794	639	521	429	356	298	251	

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = **dry**.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 37.5 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



Treated 2400Fb-1.8E-300Fv Southern Pine Glulam Roof Beams (lb/ft) – Snow Load (WET USE)

Load Duration Factor = 1.15, Fbx = 2,400 x 0.8 psi, Fvx = 300 x 0.875 psi, Ex = 1,800,000 x 0.833 psi

3-1/2-INCH WIDTH										SPAN (ft)								
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	1136	723	499	362	239	164	117	85	62	---	---	---	---	---	---	---	---	
9-1/2	1199	763	526	383	259	178	127	92	68	51	---	---	---	---	---	---	---	
11-1/4	1684	1073	740	540	410	302	216	159	119	91	70	54	---	---	---	---	---	
11-7/8	1877	1196	826	603	458	357	256	189	142	108	84	65	51	---	---	---	---	
14	2612	1665	1151	841	640	502	403	316	240	185	144	114	91	73	59	---	---	
16	3414	2178	1506	1101	838	658	529	434	361	282	222	176	142	115	94	77	63	
18	4324	2759	1909	1397	1064	836	673	550	456	384	322	257	208	170	139	115	95	

5-1/4-INCH WIDTH									SPAN (ft)									
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	1704	1085	748	543	358	246	175	127	94	70	53	---	---	---	---	---	---	
9-1/2	1798	1144	789	575	389	268	190	138	103	77	58	---	---	---	---	---	---	
11-1/4	2526	1609	1111	810	615	453	325	239	179	136	105	81	63	---	---	---	---	
11-7/8	2815	1794	1239	904	687	536	384	283	213	163	126	98	77	60	---	---	---	
14	3918	2498	1727	1261	960	752	601	474	359	277	216	171	136	109	88	71	57	
16	5122	3267	2259	1652	1255	979	783	639	530	423	332	265	213	172	140	115	94	
18	6486	4139	2864	2092	1583	1236	989	808	670	564	479	386	312	254	209	172	143	

5-7/16-INCH WIDTH										SPAN (ft)								
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	1765	1123	774	562	371	255	181	131	97	72	54	---	---	---	---	---	---	
9-1/2	1862	1185	817	596	403	277	197	143	106	80	60	---	---	---	---	---	---	
11-1/4	2616	1666	1150	839	637	469	336	247	185	141	108	84	65	51	---	---	---	
11-7/8	2916	1858	1283	936	712	555	398	293	221	168	130	102	80	62	---	---	---	
14	4058	2587	1788	1307	994	777	621	491	372	287	224	177	141	113	91	73	59	
16	5305	3384	2340	1711	1298	1013	810	660	547	438	344	274	220	178	145	119	97	
18	6718	4287	2966	2163	1637	1278	1023	835	693	583	496	399	323	263	216	179	148	

7-INCH WIDTH				SPAN (ft)														
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	2273	1446	997	724	477	328	233	169	125	93	70	53	---	---	---	---	---	
9-1/2	2398	1526	1052	767	518	357	254	185	137	102	77	58	---	---	---	---	---	
11-1/4	3368	2145	1481	1080	821	604	433	318	238	182	140	108	84	65	51	---	---	
11-7/8	3754	2392	1652	1206	915	712	512	378	284	217	168	131	102	80	63	---	---	
14	5224	3331	2302	1677	1267	987	789	632	479	369	289	228	182	146	117	94	76	
16	6829	4356	3007	2181	1649	1287	1029	839	695	564	443	353	284	230	187	153	125	
18	8649	5519	3788	2749	2080	1624	1300	1061	880	740	629	514	416	339	278	230	191	

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = **wet**.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 52 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



2400Fb-1.8E-300Fv Southern Pine Glulam Floor Beams (lb/ft) (DRY USE)

Load Duration Factor = 1.0, Fbx = 2,400 psi, Fvx = 300 psi, Ex = 1,800,000 psi

3-1/2-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	1239	761	437	272	179	124	88	64	---	---	---	---	---	---	---	---	---
9-1/2	1307	825	474	295	195	134	96	70	52	---	---	---	---	---	---	---	---
11-1/4	1835	1171	791	494	328	227	163	120	90	69	53	---	---	---	---	---	---
11-7/8	2046	1305	903	582	387	268	193	142	107	82	63	---	---	---	---	---	---
14	2846	1817	1258	921	639	445	321	238	180	139	109	86	69	55	---	---	---
16	3719	2375	1645	1204	919	668	483	359	273	212	167	133	107	87	71	58	---
18	4709	3008	2084	1526	1165	917	692	516	394	306	242	194	157	128	105	87	72

5-1/4-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	1859	1142	655	408	269	185	132	96	71	53	---	---	---	---	---	---	---
9-1/2	1961	1237	711	443	292	201	143	104	77	58	---	---	---	---	---	---	---
11-1/4	2753	1756	1186	741	492	341	244	180	135	103	79	62	---	---	---	---	---
11-7/8	3068	1958	1355	874	580	403	289	213	160	123	95	74	58	---	---	---	---
14	4268	2725	1886	1381	958	667	481	357	270	209	163	129	103	83	67	54	---
16	5578	3562	2467	1807	1375	1002	725	539	410	318	250	199	160	130	106	87	71
18	7063	4511	3125	2287	1733	1356	1039	774	591	459	363	290	235	192	158	130	108

5-7/16-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	1925	1182	679	423	279	192	136	99	73	55	---	---	---	---	---	---	---
9-1/2	2031	1282	736	458	303	209	148	108	80	60	---	---	---	---	---	---	---
11-1/4	2852	1819	1229	768	509	353	253	186	140	106	82	64	---	---	---	---	---
11-7/8	3178	2028	1403	905	601	417	299	221	166	127	98	77	60	---	---	---	---
14	4421	2822	1954	1430	992	691	498	369	280	216	169	134	107	86	69	56	---
16	5777	3689	2555	1871	1422	1038	751	558	425	329	259	206	166	135	110	90	74
18	7315	4673	3237	2364	1792	1402	1076	802	612	476	376	301	243	199	163	135	112

7-INCH WIDTH		SPAN (ft)															
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
9-1/4	2479	1522	874	544	359	247	176	128	94	71	53	---	---	---	---	---	---
9-1/2	2615	1650	947	590	390	269	191	139	103	78	59	---	---	---	---	---	---
11-1/4	3671	2342	1582	988	655	454	326	239	180	137	106	82	64	---	---	---	---
11-7/8	4091	2611	1806	1165	773	537	385	284	214	164	127	99	78	61	---	---	---
14	5691	3633	2515	1836	1277	889	641	476	360	278	218	172	137	110	89	72	58
16	7438	4750	3283	2385	1807	1336	966	719	547	424	334	266	214	173	142	116	95
18	9417	6015	4134	3005	2278	1782	1385	1032	788	612	484	387	313	256	210	174	144

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/360 under live load, based on live/total load = 0.8. Where additional stiffness is desired or for other live/total load ratios, design for deflection must be modified per requirements.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads based on live/total load = 0.8 and have taken the dead weight of the beam (assumed 37.5 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



2400Fb-1.8E-300Fv Southern Pine Glulam Floor Beams (lb/ft) (WET USE)

Load Duration Factor = 1.0, Fbx = 2,400 x 0.8 psi, Fvx = 300 x 0.875 psi, Ex = 1,800,000 x 0.833 psi

3-1/2-INCH WIDTH										SPAN (ft)								
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	987	627	359	222	145	98	68	---	---	---	---	---	---	---	---	---	---	
9-1/2	1041	662	390	241	158	107	75	53	---	---	---	---	---	---	---	---	---	
11-1/4	1462	931	642	406	267	184	130	94	69	51	---	---	---	---	---	---	---	
11-7/8	1630	1038	716	479	316	218	155	112	83	62	---	---	---	---	---	---	---	
14	2269	1446	999	729	525	363	260	191	143	109	84	65	50	---	---	---	---	
16	2966	1891	1307	955	726	549	394	291	220	169	131	103	81	64	51	---	---	
18	3757	2396	1657	1212	922	724	568	421	319	246	192	152	121	97	78	63	51	

5-1/4-INCH WIDTH										SPAN (ft)								
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	1480	941	539	333	217	147	103	73	52	---	---	---	---	---	---	---	---	
9-1/2	1561	993	585	362	236	161	112	80	57	---	---	---	---	---	---	---	---	
11-1/4	2194	1396	963	609	401	275	195	141	104	77	57	---	---	---	---	---	---	
11-7/8	2445	1557	1074	719	474	326	232	169	125	93	70	53	---	---	---	---	---	
14	3403	2169	1498	1093	787	545	390	287	215	163	125	97	75	58	---	---	---	
16	4450	2837	1961	1433	1087	823	592	437	330	253	196	154	122	96	76	60	---	
18	5636	3595	2486	1815	1372	1071	851	631	478	369	289	228	182	146	118	95	77	

5-7/16-INCH WIDTH										SPAN (ft)								
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	1533	974	558	345	225	153	106	75	54	---	---	---	---	---	---	---	---	
9-1/2	1617	1028	606	374	245	166	116	83	59	---	---	---	---	---	---	---	---	
11-1/4	2272	1446	997	631	415	285	202	146	107	80	60	---	---	---	---	---	---	
11-7/8	2533	1612	1113	745	491	338	240	175	129	97	73	55	---	---	---	---	---	
14	3525	2246	1551	1133	815	564	404	297	222	169	130	100	78	60	---	---	---	
16	4609	2938	2031	1484	1124	852	613	453	341	262	203	159	126	100	79	63	---	
18	5837	3723	2575	1877	1419	1107	882	654	495	382	299	236	189	151	122	98	79	

7-INCH WIDTH									SPAN (ft)									
Depth (in.)	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
9-1/4	1973	1254	718	444	290	196	137	97	69	---	---	---	---	---	---	---	---	
9-1/2	2082	1324	780	482	315	214	150	106	76	55	---	---	---	---	---	---	---	
11-1/4	2925	1862	1284	812	535	367	260	188	138	103	77	57	---	---	---	---	---	
11-7/8	3260	2076	1432	958	632	435	309	225	166	124	94	70	53	---	---	---	---	
14	4538	2892	1997	1453	1050	727	520	382	286	217	167	129	100	78	60	---	---	
16	5933	3782	2609	1891	1429	1097	789	583	439	337	262	205	162	128	102	80	63	
18	7515	4793	3288	2385	1803	1406	1124	842	638	492	385	304	243	195	157	127	102	

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/360 under live load, based on live/total load = 0.8. Where additional stiffness is desired or for other live/total load ratios, design for deflection must be modified per requirements.
- (4) Service condition = **wet**.
- (5) Tabulated values represent total loads based on live/total load = 0.8 and have taken the dead weight of the beam (assumed 52 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.

LIMITED WARRANTY

1. LIMITED WARRANTY COVERAGE: Boozer Laminated Beam Company, Inc. ("Boozer") warrants (for installation within the U.S.) to the purchaser and all transferees prior to and including the first owner of the structure to which the Product is properly installed (each a "covered person") that the The Outsider™ pressure treated glulam by BoozerBeam™ (the "Product"), when manufactured is free from defects in material and manufacture and, when used for its intended purpose and in accordance with the below installation and use requirements, will not structurally fail due to fungal decay for a period of 25 years from the date of purchase. For purposes of this Limited Warranty, "fungal decay" means wood destroying fungi that disintegrates the wood cell walls; provided that, fungal decay does not include surface mold or wood "weathering." This Limited Warranty does not cover discoloration of the Product, and Boozer gives no warranty regarding discoloration. Any discoloration (including, not be limited to, "photo-etching" of the Product) due exposure to light or the elements is not a part of this Limited Warranty. If during the Limited Warranty period, the Product is defective in material or manufacture, or structurally fails due to fungal decay within 25 years of purchase, Boozer, in its sole discretion, shall either replace the Product at no charge, or in the alternative, reimburse the covered person for resulting losses up to 125% of the original retail cost of the Product. If the original retail cost cannot be conclusively established by the covered person, the cost shall be determined by Boozer in its sole and reasonable discretion. Boozer's replacement of the defective Product or granting of a refund pursuant to Section 1 of this Limited Warranty SHALL BE THE SOLE EXCLUSIVE REMEDY available to the covered person with respect to structural failure. Boozer will not refund or pay any costs in connection with labor or accessory materials.

2. CONDITIONS OF WARRANTY: Boozer's liability hereunder to the covered person shall be subject to the following terms and conditions:

- (a) The claimant must provide proof that he/she is a covered person.
- (b) The Product must be installed in accordance with the installation, storage and use requirements set forth below in Section 9.
- (b) The Product must be properly stored at all times between purchase and installation.
- (c) The Product must have no ground contact and be installed in accordance all applicable building codes, rules, and ordinances ("Applicable Building Rules") adopted by federal, state or local governments or government agencies and applicable to the installation. Failure to install the Product in accordance with Boozer's installation requirements set forth in Section 9 and in accordance all Applicable Building Rules may effect Product performance and, in Boozer's sole discretion, voids this Limited Warranty.
- (d) The covered person must provide written notice to Boozer within 30 days after discovery of any claimed Product failure covered by this Limited Warranty and before beginning any permanent repair. The notice must describe the location and details of the failure and such information as is necessary for Boozer to investigate the claim. Photos of the Product, showing the fungal decay or defect are not only helpful, but also must accompany the notice, when appropriate.
- (e) Upon discovery of a possible Product problem or failure, the covered person must immediately, and at the covered person's own expense, provide for protection of all property that

could be affected until the problem or failure is remedied. Before any permanent repair, the covered person must allow Boozer or Boozer's agent to enter the property and structure where the Product is installed, and examine, photograph and take samples of the Product.

3. EXCLUSIONS: This Limited Warranty does not cover loss, damage or defects resulting from or in any way attributable to: (a) any Product failure due to any reason other than structural failure due to fungal decay or defect in material and manufacture; (b) the improper storage, shipping, handling or installation of the Product (including, without limitation, failure of the Product to be installed with no ground contact whatsoever and in strict compliance with all Applicable Building Rules and the requirements of Section 9) or improper installation of other accessories; (c) neglect; (d) abuse; (e) misuse; (f) repair or alteration; (g) settlement or structural movement or movement of materials to which the Product is attached; (h) damage from incorrect design of the structure; (i) exceeding the maximum designed weight or wind loads; (j) acts of God including, but not limited to, hurricanes, tornados, floods, earthquakes, extreme weather or other natural phenomena, (including, but not limited to, unusual climate conditions); (k) performance of any paints or coatings; (l) lack of proper maintenance; (m) damage during the construction process; (n) damage caused by the weathering of the Product including, but not limited to including but not limited to, raised grain, splitting, checking, twisting, warping, shrinkage, swelling; or de-lamination; (o) damage caused by the use of inappropriate fasteners; (p) any Product failure or damage due to "wet use" applications; or (q) discoloration. For purposes of this Limited Warranty, "wet use" applications includes any use of the Product where the average moisture contact is 16% or greater.

4. DISCLAIMER: The statements in this Limited Warranty constitute the only warranty extended by Boozer for the Product. BOOZER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EXCEPT WHERE PRODUCT PURCHASE IS SUBJECT TO SOME OVERRIDING CONSUMER PRODUCT WARRANTY LAW IN WHICH INSTANCES THE DURATION OF ANY APPLICABLE IMPLIED WARRANTIES ARE LIMITED TO THE FULLEST EXTENT ALLOWED BY THE OVERRIDING LAW.

NO OTHER WARRANTY WILL BE MADE BY OR ON BEHALF OF THE MANUFACTURER OR THE SELLER OR BY OPERATION OF LAW OR BY USAGE OF TRADE OR COURSE OF DEALING WITH RESPECT TO THE PRODUCT OR ITS INSTALLATION, STORAGE, HANDLING, MAINTENANCE, USE, REPLACEMENT OR REPAIR. This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

5. EXCLUSION OF INCIDENTAL AND CONSEQUENTIAL DAMAGES: EXCEPT AS EXPRESSLY OVERRIDDEN BY APPLICABLE LAW, IN NO EVENT WILL BOOZER BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE, OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT.

6. MODIFICATIONS AND ALTERATIONS OF PRODUCT: Boozer shall have no responsibility hereunder for failures or defects if the Product is subjected to further processing or alteration after shipment.

7. SETTLEMENT OF CLAIM: Any refund, warranty payment, or material replacement by Boozer pursuant to Section 1 hereof shall constitute a full settlement and release of all claims of any covered person hereunder for damages or other relief, and shall be a complete bar to any litigation filed subsequently to the covered person's acceptance of such an agreement.

8. MODIFICATION OR DISCONTINUATION OF PRODUCTS: Boozer reserves the right to modify or discontinue any of its products without notice and shall not be liable as a result of such modification or discontinuation.

9. INSTALLATION REQUIREMENTS AND USE MEASURES. The following precautions should be taken both when handling the Product and in determining where to use and dispose of the Product.

- The Product should not be exposed to the elements (sun, rain, snow, water, heat, cold, etc.) such that the equilibrium moisture content level is 16% or higher (the threshold for wet use).
- The Product should not be used in traditional "wet use" applications such as docks, or where the equilibrium moisture content level is 16% or higher.
- The Product should not be used where it will have contact with the ground.
- The Product should not be used where it will be in frequent or prolonged contact with bare skin (for example, chairs and other outdoor furniture), unless an effective sealer has been applied.
- Boozer recommends the resealing of all freshly sawed ends, field trimming and fabrication holes/notching with commonly used quality wood preservatives.
- The Product should not be used in residential, industrial or commercial interiors or for building components which are in ground contact or are not subject to decay or insect infestation.
- In interiors of farm buildings where domestic animals or livestock are unlikely to crib (bite) or lick the wood, the Product should only be used for building components where two coats of an appropriate sealer is applied.
- The Product is not suitable for food garden uses.
- Do not use the Product under circumstances where the preservative may become a component of food or animal feed. Examples of such unacceptable application sites would be structures or containers for storing silage or food.
- Do not use the Product for cutting-boards or countertops.
- Only treated wood that is visibly clean and free of surface residue should be used for patios, decks and walkways.
- The Product should not be used where it may come in direct or indirect contact with public drinking water and drinking water for domestic animals or livestock, except for uses involving incidental contact such as docks and bridges.

- Unless local building rules clearly dictate otherwise, only non-corrosive fasteners should be used with the Product
- Unless local building rules clearly dictate otherwise, corrosion resistant fasteners are required with the Product if a connection is made to other water borne copper treated wood or Product members are located in a severe deterioration zone.
- Dispose of the Product by ordinary trash collection or burial. Treated wood should not be burned in open fires or in stoves, fireplaces, or residential boilers because toxic chemicals may be produced as part of the smoke and ashes. Treated wood from commercial or industrial use (e.g., construction sites) may be burned only in commercial or industrial incinerators or boilers in accordance with state and federal regulations.
- Avoid frequent or prolonged inhalation of sawdust from the Product. When sawing and machining treated wood, wear a dust mask. Whenever possible, these operations should be performed outdoors to avoid indoor accumulations of airborne sawdust from treated wood.
- Avoid frequent or prolonged skin contact with the Product. When handling the treated wood, wear long-sleeved shirts, long pants and use industrial gloves.
- When power sawing and machining, wear goggles to protect eyes from flying particles.
- After working with the Product, and before eating, drinking, and use of tobacco products, wash exposed skin areas thoroughly and completely.
- If oily preservatives or Product sawdust accumulate on clothes, launder before reuse of the clothes. Work clothes exposed to the Product or its sawdust or preservatives should be washed separately from other clothing.
- While in storage, the Product should be kept dry, under cover and not have any ground contact.
- It is the covered person's sole responsibility to install the Product correctly and to select the proper sized Product for its/his/her intended use.

PENTACHLOROPHENOL PRESSURE-TREATED WOOD

CONSUMER INFORMATION

This wood has been preserved by pressure-treatment with an EPA-registered pesticide containing pentachlorophenol to protect it from insect attack and decay. Wood treated with pentachlorophenol should be used only where such protection is important.

Pentachlorophenol penetrates deeply into and remains in the pressure-treated wood for a long time. Exposure to pentachlorophenol may present certain hazards. Therefore, the following precautions should be taken both when handling the treated wood and in determining where to use and dispose of the treated wood.

USE SITE PRECAUTIONS

Logs treated with pentachlorophenol should not be used for log homes.

Wood treated with pentachlorophenol should not be used where it will be in frequent or prolonged contact with bare skin (for example, chairs and other outdoor furniture), unless an effective sealer has been applied.

Pentachlorophenol-treated wood should not be used in residential, industrial, or commercial interiors except for laminated beams or for building components which are in ground contact and are subject to decay or insect infestation and where two coats of an appropriate sealer are applied. Sealers may be applied at the installation site.

Wood treated with pentachlorophenol should not be used in the interiors of farm buildings where there may be direct contact with domestic animals or livestock which may crib (bite) or lick the wood.

In interiors of farm buildings where domestic animals or livestock are unlikely to crib (bite) or lick the wood, pentachlorophenol-treated wood may be used for building components which are in ground contact and are subject to decay or insect infestation and where two coats of an appropriate sealer are applied. Sealers may be applied at the installation site.

Do not use pentachlorophenol-treated wood for farrowing or brooding facilities.

Do not use treated wood under circumstances where the preservative may become a component of food or animal feed. Examples of such sites would be structures or containers for storing silage or food.

Do not use treated wood for cutting-boards or countertops.

Only treated wood that is visibly clean and free of surface residue should be used for patios, decks and walkways.

Do not use treated wood for construction of those portions of beehives which may come into contact with the honey.

Pentachlorophenol-treated wood should not be used where it may come into direct or indirect contact with public drinking water, except for uses involving incidental contact such as docks and bridges.

Do not use pentachlorophenol-treated wood where it may come into direct or indirect contact with drinking water for domestic animals or livestock, except for uses involving incidental contact such as docks and bridges.

HANDLING PRECAUTIONS

Dispose of treated wood by ordinary trash collection or burial. Treated wood should not be burned in open fires or in stoves, fireplaces, or residential boilers because toxic chemicals may be produced as part of the smoke and ashes. Treated wood from commercial or industrial use (e.g., construction sites) may be burned only in commercial or industrial incinerators or boilers rated at 20 million BTU/hour or greater heat input or its equivalent in accordance with state and Federal regulations.

Avoid frequent or prolonged inhalation of sawdust from treated wood. When sawing and machining treated wood, wear a dust mask. Whenever possible, these operations should be performed outdoors to avoid indoor accumulations of airborne sawdust from treated wood.

Avoid frequent or prolonged skin contact with pentachlorophenol-treated wood; when handling the treated wood, wear long-sleeved shirts and long pants and use gloves impervious to the chemicals (for example, gloves that are vinyl-coated).

When power-sawing and machining, wear goggles to protect eyes from flying particles.

After working with the wood, and before eating, drinking, and use of tobacco products, wash exposed areas thoroughly.

If oily preservatives or sawdust accumulate on clothes, launder before reuse. Wash work clothes separately from other household clothing.

Urethane, shellac, latex epoxy enamel and varnish are acceptable sealers for pentachlorophenol-treated wood.

Material Safety Data Sheet

Dura-Treat 40 Wood Preserver®

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY: KMG CHEMICALS
9555 W. Sam Houston Parkway S., Suite 600
Houston, Texas 77099
PHONE NUMBER: 713-600-3800
EMERGENCY PHONE: CHEMTREC: 1-800-424-9300
NAME USED ON LABEL: Dura-Treat 40 Wood Preserver

PRODUCT USE: Wood Preservative

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>IDENTITY</u>	<u>CAS NUMBER</u>	<u>TYPICAL %</u>	<u>OTHER INFORMATION</u>
Pentachlorophenol	87-86-5	38.0-42.0	
Other Chlorophenols	Mixture	1.0-2.0	
Aliphatic Esters and Aldehydes	Mixture	57.0-61.0	

Ingredients not precisely identified are proprietary or non-hazardous.
Values are not product specifications.

SECTION 3: HAZARDS IDENTIFICATION

HEALTH HAZARDS: Primary Exposure Routes via inhalation and skin absorption.

Inhalation: Pentachlorophenol may be fatal if inhaled. Symptoms of over-exposure include sneezing, weakness, excessive sweating, headache, nausea, vomiting and difficult breathing. High concentrations can cause unconsciousness, convulsions and death. Concentrations greater than 1 mg/m³ can cause nasal irritation.

Skin: Pentachlorophenol can be harmful or fatal if absorbed through the skin. It causes skin burns on prolonged or repeated contact. An allergic reaction may develop in a limited number of persons.

Eyes: Pentachlorophenol causes irritation to the eye at 1 mg/m³. If exposure is prolonged, slight transient corneal damage may occur.

Ingestion: Pentachlorophenol may be fatal if ingested. Symptoms of overexposure include sneezing, weakness, excess sweating, headache, nausea, vomiting and difficult breathing. High concentrations can cause unconsciousness, convulsions and death.

Chloracne: Human exposure to pentachlorophenol may result in the development of chloracne. The usual symptoms of chloracne are the formation of blackheads, whiteheads and yellow cysts over the temples and around the ears. Mild cases resemble other forms of acne or skin changes observed with aging. Symptoms reverse upon removal of exposure source.

MATERIAL SAFETY DATA SHEET

Dura-Treat 40 Wood Preserver

SECTION 3: HAZARDS IDENTIFICATION (Continued)

Chronic Toxicity: Chronic overexposure of lab animals to pentachlorophenol has caused toxic effects of liver and kidneys.

Reproductive Toxicity: Pentachlorophenol has been determined to be embryo and fetotoxic to rats but not to hamsters. Pentachlorophenol has not been found to cause teratogenic effects (birth defects) in lab animals, but can cause delays in normal fetal development. EPA has expressed an opinion that pentachlorophenol may produce defects in the offspring of lab animals. **Exposure to pentachlorophenol during pregnancy should be avoided.**

Carcinogenicity: The National Toxicology Program (NTP) has evaluated pentachlorophenol for possible cancer causing effects in lab animals and has indicated a statistically significant increase in benign liver tumors. Vascular tumors were seen in female mice but not males. Increased medulla tumors were observed in both sexes of mice. To other carcinogenicity studies, one in mice and one in rats, failed to show increased incidence of tumors. The International Agency for Research on Cancer (IARC) has concluded there is sufficient evidence of carcinogenicity to lab animals and inadequate evidence of carcinogenicity to humans, resulting in a classification as a 2B animal carcinogen.

SECTION 4: FIRST AID MEASURES

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless told to by a poison control center or doctor.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN: This product is a metabolic stimulant. Treatment is supportive. Forced Diuresis may be effective to reduce total body-burden. Treat hyperthermia with physical measures. Do not administer aspirin, phenothiazines or atropine since they may enhance toxicity.

SECTION 5: FIREFIGHTING MEASURES

FLASH POINT: ~150 - ~200 °F (ASTM D-93, Pensky-Martens Closed Cup)

AUTOIGNITION TEMPERATURE: Not Determined

FLAMMABLE LIMITS (LEL/UEL): Not Determined

EXTINGUISHING MEDIA: Use dry chemical, carbon dioxide or foam.

MATERIAL SAFETY DATA SHEET

Dura-Treat 40 Wood Preserver

SECTION 5: FIREFIGHTING MEASURES (Continued)

PROTECTIVE EQUIPMENT: Fire fighters should wear MSHA/NIOSH approved self-contained positive-pressure breathing apparatus and full protective clothing. Avoid exposing the skin to the product.

NFPA RATING: Health 3 Fire 2 Reactivity 0

SPECIAL HAZARDS: Unusual Fire and Explosion Hazards – Fumes and vapors from the hot or burning product may contain hydrogen chloride (HCl), carbon monoxide (CO) and carbon dioxide (CO₂).

SPECIAL FIRE FIGHTING PROCEDURES: Use blanketing effect to smother fire. Avoid spraying water directly into stored containers because of the danger of boil-over of contaminated water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

METHODS FOR CLEANING UP: Do not dispose of spilled material in streams or waterways. Improper disposal of excess pesticide, spray mixture, spills or rinsate is a violation of Federal law

Spills: Restrict access to the spill area. Ventilate the spill area. Wear suitable protective clothing. For small spills, absorb the liquid on clay or vermiculite. Sweep up absorbent material and place in an approved container for disposal according to the applicable State and Federal laws. For large spills, eliminate all sources of ignition, stop the flow of product from the spill source, restrict access to the spill area, dike the area to prevent spreading, collect all pumpable quantities into a recovery vessel, absorb the remaining liquid on clay or vermiculite, sweep up absorbent material and place in an approved container for disposal according to the applicable State and Federal laws.

Reportable Quantity: Reportable quantity (RQ) is 10 lbs. which is approximately 2.5 gallons of this product. Spills in excess of the reportable quantity must be reported to the United States Environmental Protection Agency's National Response Center at 800-424-8802.

Waste Disposal: Pesticide wastes are toxic. Dispose of wastes and residues of this product in accordance with state and federal regulation. If these wastes or residues cannot be disposed of in accordance with label directions, contact your state Pesticide or Environmental Control Agency, or the Hazardous Waste Representative of the United States Environmental Protection Agency for guidance. It is the responsibility of the user to determine which state and federal regulations apply to the user's facility.

SECTION 7: HANDLING AND STORAGE SECTION

REQUIREMENTS FOR STORAGE ROOMS: Store away from food or feed in a secure, well-ventilated area protected from extremes of temperature. Avoid bringing this product into contact with open flames, electric arcs or hot surfaces which can cause thermal decomposition. Store only in tightly closed original container.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:

ACGIH TLV TWA (8 hour) 0.5 mg/m³ OSHA PEL TWA (8 hour) 0.5 mg/m³

VENTILATION: Do not use in closed or confined space. Open door and/or windows. Provide exhaust ventilation or other engineering controls to keep the airborne concentration below 0.5 mg/m³.

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Dura-Treat 40 Wood Preserver

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

BODY PROTECTION: Wear PVC, neoprene, NBR(Buna-N), nitrile latex or equivalent gloves and tightly woven clothing including long sleeve shirt when handling pentachlorophenol. When mixing penta solutions, wear protective clothing, gloves, boots or shoes, which are suitable for the solvent used.

HYGIENE: Avoid contact with skin and breathing mist or fumes. Do not eat, drink or smoke in work area. Wash hands prior to eating, drinking or using restroom. Shower and change into uncontaminated clothing before leaving work premises. Wash clothing before re-use. Do not wash with household laundry.

EYE PROTECTION: Use protective eyewear. Do not wear contact lenses. When mixing penta solutions, wear chemical goggles and/or face shield.

RESPIRATORY PROTECTION: Where concentrations of pentachlorophenol exceed or are likely to exceed 0.5 mg/m³, a NIOSH/MSHA approved organic vapor-dust filter type respirator is acceptable. A NIOSH/MSHA approved self-contained breathing apparatus or air line respirator with full face piece, is required for concentrations above 150.0 mg/m³, or during emergency and spills. Follow applicable respirator use standards and regulations.

OTHER PROTECTIVE EQUIPMENT: Safety shower and eye wash stations should be available. Monitoring should be performed regularly to determine exposure levels.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

CHEMICAL FORMULA	C ₆ Cl ₅ OH
MOLECULAR WEIGHT	266.32
FORMULATION:	40 % Solution
PHYSICAL STATE:	Liquid
COLOR:	Dark
ODOR:	Phenolic
BOILING POINT:	≥ 214° F
MELTING POINT:	Not applicable
FREEZING TEMPERATURE:	Not applicable
VAPOR PRESSURE:	> 0.4 mm Hg @ 60° F
VAPOR DENSITY:	4.5 (Air = 1.0)
EVAPORATION RATE:	< 1 (n-BuAc = 1)
SPECIFIC GRAVITY:	1.15 – 1.17 (Water = 1.0)
BULK DENSITY:	9.60 – 9.76 lb/gal @ 20° C
SOLUBILITY IN WATER:	Insoluble

SECTION 10: STABILITY AND REACTIVITY

HAZARDOUS REACTIONS (CONDITIONS TO AVOID):

Stability: Stable under normal conditions. Avoid contact with open flames, electric arcs or hot surfaces.

Incompatibility: Avoid contact with strong oxidizers.

Hazardous polymerization: Material is not known to polymerize.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, chlorine, carbon monoxide, carbon dioxide, polychlorinated dibenzodioxins and polychlorinated dibenzofurans.

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SECTION 11: TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): 1.58 g/kg
Acute Dermal LD₅₀ (rabbit): 4.20 g/kg
Acute Inhalation (rat – 4 hr): >20 mg/kg
Primary Eye Irritation (rabbit): Not a primary irritant
Primary Dermal Irritation (rabbit): Slight irritant
Dermal Sensitization : Not expected to cause sensitization

EFFECTS OF OVEREXPOSURE: Acute overexposure symptoms include sneezing, weakness, excessive sweating, headache, nausea, vomiting, difficulty in breathing, unconsciousness, convulsions and death. Chronic exposure has caused toxic liver and kidney effects in lab animals. Exposure to pentachlorophenol during pregnancy should be avoided.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY ASSESSMENT: Maybe toxic to aquatic wildlife.

OTHER ECOLOGY INFORMATION: Toxic to wildlife.

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Wastes resulting from the use of this product may be disposed of on site or at an Approved waste disposal facility. Do not contaminate waterways by cleaning of equipment or by disposal of wastes.

CONTAINER DISPOSAL: Empty containers retain product residue. Triple rinse, or equivalent, empty container, return rinse water to dilution mixture, and dispose of dilution mixture as hazardous waste if it cannot be disposed of by use according to label instructions. Do not reuse container. Offer it for recycling or reconditioning, or puncture and dispose of in properly permitted landfill.

SECTION 14: TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: UN 1306, Wood Preservatives, Liquid, Flammable, 3, PG II, Marine Pollutant (pentachlorophenol), RQ (pentachlorophenol)

PLACARD: FLAMMABLE

EMERGENCY RESPONSE GUIDE (ERG): Guide 129

SECTION 15: REGULATORY INFORMATION

UNITED STATES EPA: EPA Reg. No. 61483-2
EPA Signal Word: DANGER - POISON

OTHER: SARA 313 Inventory Ingredients – Subject to reporting requirements

CERCLA REPORTABLE QUANTITY – 10 Lbs/4.54 KG

CALIFORNIA PROPOSITION 65 – Listed as known carcinogen

OTHER RIGHT TO KNOW STATES - New Jersey, Pennsylvania, Minnesota,
Massachusetts

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SECTION 16: OTHER INFORMATION

This Material Safety Data Sheet may be used to comply with OSHA's Hazardous Communication Standard, 29 CFR 1910.1200, and the Standard must be consulted to ensure full compliance.

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