

**Manganese On The Tie, Found In 667 Different Particles In 265 Configurations (50 Most Common)**

Overall Rank	1st	2nd	3rd	4th	1st Avg Wt	2nd Avg Wt	3rd Avg Wt	4th Avg Wt	5th+ Avg Wt	Number
290	Fe	Cr	Ni	Mn	69%	16%	11%	2%	1%	66
800	Fe	Ni	Mn	Si	96%	2%	1%	1%	0%	19
863	Fe	Mn	Si		98%	2%	0%	0%	0%	17
910	Fe	Si	Al	Mn	57%	17%	11%	6%	10%	16
913	Fe	Ti	Si	Mn	72%	21%	3%	2%	3%	16
1010	Fe	Si	Mn	Al	77%	7%	5%	3%	8%	14
1064	Fe	Mn	Si	Ca	79%	8%	4%	3%	6%	13
1173	Cl	K	Ni	Mn	51%	48%	1%	0%	0%	11
1180	Fe	Ca	Mn	Si	86%	6%	3%	2%	3%	11
1186	Fe	Si	Ca	Mn	84%	8%	3%	2%	2%	11
1192	Fe	Ti	Mn	Ni	66%	26%	3%	2%	2%	11
1368	Fe	Mn	Al	Si	84%	6%	4%	3%	4%	9
1378	Fe	Ti	Mn	Si	59%	36%	3%	2%	1%	9
1460	Ca	S	Ni	Mn	54%	41%	4%	1%	1%	8
1496	Fe	Ti	Mn	Al	68%	25%	5%	2%	1%	8
1636	Fe	Ni	Si	Mn	94%	2%	1%	1%	1%	7
1643	Fe	Si	Mn	Ca	94%	3%	1%	1%	1%	7
1646	Fe	Ti	Ni	Mn	70%	25%	2%	1%	2%	7
1822	Fe	Mn	Ca	Si	86%	4%	2%	2%	6%	6
1823	Fe	Mn	Si	Al	82%	5%	3%	3%	6%	6
1824	Fe	Mn			99%	1%	0%	0%	0%	6
2065	Fe	Al	Mn	Si	79%	9%	5%	3%	5%	5
2066	Fe	Al	Mn		95%	3%	2%	0%	0%	5
2068	Fe	Al	Ni	Mn	89%	6%	3%	1%	1%	5
2077	Fe	Cr	Mn	Si	93%	5%	1%	1%	0%	5
2086	Fe	Ni	K	Mn	74%	9%	7%	4%	6%	5
2221	Ti	Fe	Mn	Si	48%	39%	6%	3%	4%	5
2222	Ti	Fe	Si	Mn	51%	42%	3%	2%	2%	5
2323	Ca	Ni	Mn	Si	94%	3%	2%	1%	1%	4
2325	Ca	Ni	Si	Mn	93%	3%	2%	1%	1%	4
2342	Ca	S	Si	Mn	55%	44%	1%	1%	0%	4
2412	Fe	Ca	Si	Mn	78%	13%	3%	3%	3%	4
2418	Fe	Cr	Mn	Ni	66%	14%	8%	6%	6%	4
2422	Fe	Cu	Si	Mn	92%	4%	2%	1%	1%	4
2425	Fe	Mn	Si	Mg	97%	2%	1%	0%	0%	4
2427	Fe	Ni	Al	Mn	93%	3%	2%	1%	1%	4
2431	Fe	Ni	Cr	Mn	76%	13%	8%	2%	2%	4
2435	Fe	Ni	Mn	Ca	88%	8%	2%	1%	1%	4
2448	Fe	Si	Mg	Mn	63%	25%	8%	2%	3%	4
2451	Fe	Si	Ni	Mn	90%	5%	2%	1%	1%	4
2455	Fe	Ti	Al	Mn	72%	22%	3%	2%	2%	4
2456	Fe	Ti	Ca	Mn	55%	36%	4%	3%	3%	4
2460	Fe	Zn	Mn	Ca	75%	11%	6%	4%	4%	4
2542	Si	Fe	Al	Mn	35%	24%	18%	7%	15%	4
2622	Zn	Si	Ni	Mn	79%	11%	4%	3%	2%	4
2656	Al	Fe	Si	Mn	63%	26%	4%	2%	4%	3
2752	Ca	Mg	Fe	Mn	70%	18%	7%	2%	3%	3
2886	Fe	Al	Si	Mn	94%	3%	2%	1%	1%	3
2931	Fe	Mn	Ni	Si	91%	5%	2%	1%	1%	3
2932	Fe	Mn	Si	Cl	97%	1%	1%	1%	0%	3