

Metal Group	Prod. #	Order	Specific Metal Alloy SDS	Make-up of Alloy Group			Currently Available	Link to AFS Bookstore
Steel	SC002		High-Alloy Steel Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Chromium (Cr)	10.0–52.0	7440-47-3		
				Cobalt (Co)	0–2.5	7440-48-4		
				Copper (Cu)	0–4.0	7440-50-8		
				Iron (Fe)	Remainder	7439-89-6		
				Manganese (Mn)	0.3–6.0	7439-96-5		
				Molybdenum (Mo)	2.0–7.0	7439-98-7		
				Nickel (Ni)	3.0–72.0	7440-02-0		
				Niobium (Nb) formerly Columbium (Cb)	0–1.2	3/1/7440		
				Silicon (Si)	0–3.5	7440-21-3		
				Tantalum (Ta)	0.1–1.0	7440-25-7		
				Tungsten (W)	0.5–2.5	7440-33-7		
	SC008		Nickel-Based Steel Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Carbon (C)	0.07–1.00	7440-44-0		
				Chromium (Cr)	0–1.00	7440-47-3		
				Cobalt (Co)	0–2.5	7440-48-4		
				Copper (Cu)	1.25–33.0	7440-50-8		
				Iron (Fe)	2.0–11.0	7439-89-6		
				Manganese (Mn)	1.00–1.5	7439-96-5		
				Molybdenum (Mo)	26.0–33.0	7439-98-7		
				Nickel (Ni)	54.7–95.0	7440-02-0		
				Niobium (Nb) formerly Columbium (Cb)	0–1.2	3/1/7440		
				Silicon (Si)	1.00–4.5	7440-21-3		
	SC009		Carbon and Alloy Steel Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Carbon (C)	0–1.45	7440-44-0		
				Chromium (Cr)	0–1.5	7440-47-3		
				Iron (Fe)	Remainder	7439-89-6		
				Manganese (Mn)	0–14.0	7439-96-5		
				Molybdenum (Mo)	0–2.1	7439-98-7		
				Nickel (Ni)	0–2.0	7440-02-0		
				Silicon (Si)	0–2.25	7440-21-3		
	SC015		Chromium-Nickel Alloy Steel Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Chromium (Cr)	1.35–1.85	7440-47-3		
				Iron (Fe)	Remainder	7439-89-6		
				Nickel (Ni)	2.5–3.90	7440-02-0		
	SC016		Nickel-Alloy Steel Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Carbon (C)	0.12–1.3	7440-44-0		
				Chromium (Cr)	0–2.0	7440-47-3		
				Iron (Fe)	Remainder	7439-89-6		
				Manganese (Mn)	0.40–14.0	7439-96-5		
				Molybdenum (Mo)	0–1.20	7439-98-7		

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				Nickel (Ni)	0–10.0	7440-02-0		
				Silicon (Si)	0.30–1.00	7440-21-3		
	SC019		Chromium-Alloy Steel Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Carbon (C)	0.20–1.35	7440-44-0		
				Chromium (Cr)	0.75–10.0	7440-47-3		
				Iron (Fe)	Remainder	7439-89-6		
				Manganese (Mn)	0.30–14.0	7439-96-5		
				Molybdenum (Mo)	0–1.75	7439-98-7		
				Nickel (Ni)	0–0.50	7440-02-0		
				Niobium (Nb) formerly Columbium (Cb)	0–1.2	3/17440		
				Silicon (Si)	0.20–2.00	7440-21-3		
				Sulfur (S)	0.025–1.00	7704-34-9		
				Tungsten (W)	0–1.70	7440-33-7		
				Vanadium (V)	0–1.20	1314-62-1		
	SC029		Chromium-Based Steel Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Carbon (C)	0.06–1.60	7440-44-0		
				Chromium (Cr)	11.5–30.0	7440-47-3		
				Cobalt (Co)	0–3.50	7440-48-4		
				Copper (Cu)	0–3.25	7440-50-8		
				Iron (Fe)	Remainder	7439-89-6		
				Manganese (Mn)	0.70–9.0	7439-96-5		
				Molybdenum (Mo)	0–2.25	7439-98-7		
				Nickel (Ni)	0–9.0	7440-02-0		
				Silicon (Si)	0.65–4.5	7440-21-3		
				Tungsten (W)	0–1.25	7440-33-7		
				Vanadium (V)	0–1.0	1314-62-1		
	SC049		High-Cobalt Steel Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Beryllium (Be)	0–1.0	7440-41-7		
				Carbon (C)	0.025–2.5	7440-44-0		
				Chromium (Cr)	19.0–31.0	7440-47-3		
				Cobalt (Co)	29.2–66.7	7440-48-4		
				Iron (Fe)	1.0–29.6	7439-89-6		
				Manganese (Mn)	0.15–2.5	7439-96-5		
				Molybdenum (Mo)	0–10.5	7439-98-7		
				Nickel (Ni)	1.5–37.0	7440-02-0		
				Niobium (Nb) formerly Columbium (Cb)	0–4.5	3/17440		
				Silicon (Si)	0–1.5	7440-21-3		
				Titanium (Ti)	0–2.2	7440-36-6		
Iron	SC037		Abrasion Resistant Cast Iron (White Cast Iron) Castings	CHEMICAL NAME/ COMMON NAME/ SYNONYM	Wt %	CAS NUMBER	done	
				Carbon (C)	1.5–3.9	7440-44-0		
				Chromium (Cr)	0.5–32.0	7440-47-3		

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				Copper (Cu)	<1.2	7440-50-8		
				Iron (Fe)	Remainder	7439-89-6		
				Manganese (Mn)	0.2–2.5	7439-96-5		
				Molybdenum (Mo)	0.01–3.5	7439-98-7		
				Nickel (Ni)	0.01–8.0	7440-02-0		
				Silicon (Si)	0.5–3.0	7440-21-3		
	SC038		Austenitic Gray Iron Castings	CHEMICAL NAME/ COMMON NAME/ SYNONYM	Wt %	CAS NUMBER		
				Carbon (C)	2.6–3.0	7440-44-0		
				Chromium (Cr)	0.1–6.0	7440-47-3		
				Copper (Cu)	0.05–7.5	7440-50-8		
				Iron (Fe)	Remainder	7439-89-6		
				Manganese (Mn)	0.5–1.5	7439-96-5		
				Nickel (Ni)	13.5–36.0	7440-02-0		
				Silicon (Si)	1.0–6.0	7440-21-3		
	SC039		Austenitic Ductile Iron Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Carbon (C)	2.4–3.0	7440-44-0		
				Chromium (Cr)	0.1–5.5	7440-47-3		
				Iron (Fe)	46.0–77.1	7439-89-6		
				Manganese (Mn)	0.7–2.4	7439-96-5		
				Molybdenum (Mo)	0.7–1.0	6439-98-7		
				Nickel (Ni)	18.0–38.0	7440-02-0		
				Silicon (Si)	1.0–6.0	7440-21-3		
	SC040		Malleable Iron Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Carbon (C)	2.0–3.0	7440-44-0		
				Chromium (Cr)	0.02–0.1	7440-47-3		
				Iron (Fe)	92.9–96.6	7439-89-6		
				Manganese (Mn)	0.1–1.50	7439-96-5		
				Silicon (Si)	0.8–2.0	7440-21-3		
	SC041		Gray Iron Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Carbon (C)	2.5–4.0	7440-44-0		
				Chromium (Cr)	0.01–1.5	7440-47-3		
				Copper (Cu)	0.01–1.00	7440-50-8		
				Iron (Fe)	86.3–96.2	7439-89-6		
				Manganese (Mn)	0.2–1.1	7439-96-5		
				Nickel (Ni)	0.01–1.5	7440-02-0		
				Silicon (Si)	1.0–3.5	7440-21-3		
				Tin (Sn)	0.1–0.15	7440-31-5		
	SC042		Ductile Iron Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Carbon (C)	3.0–4.3	7440-44-0		
				Chromium (Cr)	0.02–0.13	7440-47-3		
				Copper (Cu)	0.01–1.5	7440-50-8		

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				Iron (Fe)	87.7–95.1	7439-89-6		
				Magnesium (Mg)	0.0001–0.10	7439-95-4		
				Manganese (Mn)	<1.2	7439-96-5		
				Molybdenum (Mo)	0.01–0.50	7439-98-7		
				Nickel (Ni)	0.1–2	7440-02-0		
				Silicon (Si)	1.8–4	7440-21-3		
				Tin (Sn)	0.1–0.15	7440-31-5		
Aluminum	SC047		Aluminum Castings 200 series (Except #203.2)	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al)	balance	7429-90-5		
				Antimony (Sb)	0.20–0.30	7440-36-0		
				Chromium (Cr)	0.15–0.6	7440-47-3		
				Cobalt (Co)	0.20–0.30	7440-48-4		
				Copper (Cu)	3.5–9.0	7440-50-8		
				Iron (Fe)	0.05–1.2	1309-37-1		
				Magnesium (Mg)	0.03–6.5	1309-48-4		
				Manganese (Mn)	0.05–0.7	7339-96-5		
				Nickel (Ni)	0.03–2.3	7440-02-0		
				Silicon (Si)	0.05–3.0	7440-21-3		
				Silver (Ag)	0.40–1.0	7440-22-4		
				Titanium (Ti)	0.07–0.25	7440-32-6		
				Zinc (Zn)	0.05–0.5	1314-13-2		
				Zirconium (Zr)	0.10–0.30	7440-67-7		
	SC048		Aluminum 300 Series (with Beryllium) Castings	CHEMICAL NAME/ COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al)	balance	7429-90-5		
				Beryllium (Be)	0.10–0.30	7440-41-7		
				Chromium (Cr)	0.0–0.5	7440-47-3		
				Copper (Cu)	0.03–5.0	7440-50-8		
				Iron (Fe)	0.06–1.5	1309-37-1		
				Magnesium (Mg)	0.05–1.5	1309-48-4		
				Manganese (Mn)	0.03–0.80	7439-96-5		
				Nickel (Ni)	0.0–3.0	7440-02-0		
				Silicon (Si)	4.5–23.0	7440-21-3		
				Tin (Sn)	0.0–0.35	7440-31-5		
				Titanium (Ti)	0.04–0.25	7440-32-6		
				Vanadium (V)	0.08–0.15	7440-62-2		
				Zinc (Zn)	0.0–3.0	7440-66-6		
	SC050		Aluminum 100 Series Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al)	>98.9	7429-90-5		
	SC051		Aluminum 203.2 Series Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al)	balance	7429-90-5		
				Antimony (Sb)	0.20–0.30	7440-36-0		
				Cobalt (Co)	0.20–0.30	7440-48-4		

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				Copper (Cu)	4.8–5.2	7440-50-8		
				Manganese (Mn)	0.02–0.30	7439-96-5		
				Nickel (Ni)	1.3–1.7	7440-02-0		
				Titanium (Ti)	0.15–0.25	7440-32-6		
				Zirconium (Zr)	0.10–0.30	7440-67-7		
	SC052		Aluminum 300 Series (without Beryllium) Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al)	62–95	7429-90-5		
				Chromium (Cr)	0.0–0.50	7440-47-3		
				Copper (Cu)	0.03–5.0	7440-50-8		
				Iron (Fe)	0.06–1.5	1309-37-1		
				Magnesium (Mg)	0.05–1.5	1309-48-4		
				Manganese (Mn)	0.03–0.80	7449-96-5		
				Nickel (Ni)	0.0–3.0	7440-02-0		
				Silicon (Si)	4.5–23.0	7440-21-3		
				Tin (Sn)	0.0–0.25	7440-31-5		
				Titanium (Ti)	0.04–0.25	7440-32-5		
				Vanadium (V)	0.08–0.15	7440-62-2		
	SC055		Aluminum 400 Series Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al)	Balance	7429-90-5		
				Chromium (Cr)	<0.25	7440-47-3		
				Copper (Cu)	0.05–1.0	7440-50-8		
				Iron (Fe)	0.12–1.30	1309-37-1		
				Nickel (Ni)	0.0–0.50	7440-02-0		
				Silicon (Si)	3.3–13.0	7440-21-3		
	SC056		Aluminum 500 Series Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al)	Balance	7429-90-5		
				Chromium (Cr)	<0.25	7440-47-3		
				Copper (Cu)	0.15–0.40	7440-50-8		
				Iron (Fe)	0.1–1.8	1309-37-1		
				Magnesium (Mg)	0.8–10.6	1309-48-4		
				Manganese (Mn)	0.10–0.25	7439-96-5		
				Nickel (Ni)	0.05–0.40	7440-02-0		
				Silicon (Si)	0.1–2.2	7440-21-3		
				Titanium (Ti)	0.10–0.25	7440-32-6		
				Zinc (Zn)	0.05–2.20	1314-13-2		
	SC057		Aluminum 700 Series Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al)	Balance	7429-90-5		
				Chromium (Cr)	0.0–0.60	7440-47-3		
				Copper (Cu)	0.10–2.0	7440-50-8		
				Iron (Fe)	0.10–1.4	1309-37-1		
				Magnesium (Mg)	0.3–2.4	1309-48-4		
				Manganese (Mn)	0.40–0.60	7439-96-5		

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				Nickel (Ni)	<0.15	7440-02-0		
				Titanium (Ti)	0.15–0.25	7440-32-6		
				Zinc (Zn)	2.70–8.0	1314-13-2		
	SC058		Aluminum 800 Series Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al)	Balance	7429-90-5		
				Copper (Cu)	0.7–6.4	7440-50-8		
				Magnesium (Mg)	0.10–0.90	1309-48-4		
				Nickel (Ni)	0.3–1.5	7440-02-0		
				Silicon (Si)	0.05–4.5	7440-21-3		
				Tin (Sn)	5.5–7.0	7440-31-5		
Copper	SC013		Copper Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Copper (Cu) Metal	99.7% (min)–99.95%*	7440-50-8		
				*Trace amounts of Boron and Silver make-up the remainder				
	SC014		High Copper Alloy (Low Beryllium) Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Beryllium (Be) Metal	0.0–0.1	7440-41-7		
				Chromium (Al) Metal	0.0–1.5	7440-47-3		
				Cobalt (Co) Metal	0.0–1.0	7440-48-4		
				Copper (Cu) Metal	95.1–98.5	7440-50-8		
				Nickel (Ni) Metal	0.0–3.0	7440-02-0		
				Silver (Ag) Metal	0.0–1.2	7440-22-4		
	SC017		High Copper Alloy (High Beryllium) Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Beryllium (Be) Metal	0.3–2.85	7440-41-7		
				Chromium (Al) Metal	0.0–0.1	7440-47-3		
				Cobalt (Co) Metal	0.0–2.7	7440-48-4		
				Copper (Cu) Metal	94.2–96.5	7440-50-8		
				Nickel (Ni) Metal	0.0–2.0	7440-02-0		
				Silicon (Si) Metal	0.0–0.35	7440-21-3		
				Silver (Ag) Metal	0.0–1.2	7440-22-4		
	SC018		Red Brass (Low Lead) Castings/Copper-Tin-Zinc Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Cobalt (Co) Metal	0.0–2.0	7440-48-4		
				Copper (Cu) Metal	83.0–92.0	7440-50-8		
				Lead (Pb)	1.0–5.5	7439-92-1		
				Nickel (Ni) Metal	0.0–2.0	7440-02-0		
				Tin (Sn) Metal	0.0–6.5	7440-31-5		
				Zinc (Zn) Metal	1.0–12.0	7440-66-6		
	SC020		Leaded Red Brass/Copper-Tin-Zinc-Leaded/Leaded Semi-Red Brass /Semi-Red Brass Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		

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				Antimony (Sb) Metal	0.0–0.8	7440-36-0		
				Cobalt (Co) Metal	0.5–2.0	7440-48-4		
				Copper (Cu) Metal	75.0–94.0	7440-50-8		
				Iron (Fe) Metal	0.0–0.8	1309-37-1		
				Lead (Pb) Metal	0.5–8.0	7439-92-1		
				Nickel (Ni) Metal	0.5–2.0	7440-02-0		
				Tin (Sn) Metal	0.0–6.0	7440-31-5		
				Zinc (Zn) Metal	1.0–17.0	7440-66-6		
	SC021		Yellow Brass/Leaded Yellow Brass Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Cobalt (Co) Metal	<0.1–1.0	7440-48-4		
				Copper (Cu) Metal	57.0–75.0	7440-50-8		
				Lead (Pb) Metal	0.20–3.8	7439-92-1		
				Nickel (Ni) Metal	<0.1–1.0	7440-02-0		
				Tin (Sn) Metal	0.5–2.0	7440-31-5		
				Zinc (Zn) Metal	20.0–41.0	7440-66-6		
	SC022		Manganese-Bronze/Leaded Manganese Bronze Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al) Metal	0.5–7.5	7429-90-5		
				Cobalt (Co) Metal	0.0–6.0	7440-48-4		
				Copper (Cu) Metal	54.0–68.0	7440-50-8		
				Iron (Fe) Metal	0.4–4.0	1309-37-1		
				Lead (Pb) Metal	<0.2–2.0	7439-92-1		
				Manganese (Mn) Metal	0.1–23.0	7439-96-5		
				Nickel (Ni) Metal	0.0–6.0	7440-02-0		
				Tin (Sn) Metal	<0.2–2.5	7440-31-5		
				Zinc (Zn) Metal	17.1–42.0	7440-66-6		
	SC023		Copper-Silicon/Silicon Bronzes/Silicon Brass Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Cobalt (Co) Metal	0.0–0.2	7440-48-4		
				Copper (Cu) Metal	63.0–95.0	7440-50-8		
				Lead (Pb) Metal	0.0–1.0	7439-92-1		
				Manganese (Mn) Metal	0.0–1.5	7439-96-5		
				Nickel (Ni) Metal	0.0–0.2	7440-02-0		
				Silicon (Si) Metal	0.8–5.5	7440-21-3		
				Zinc (Zn) Metal	1.0–40.0	7440-66-6		
	SC024		Copper-Tin/Tin Bronze Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Cobalt (Co) Metal	0.0–2.0	7440-48-4		
				Copper (Cu) Metal	79.0–94.0	7440-50-8		
				Lead (Pb) Metal	0.0–0.5	7439-92-1		
				Nickel (Ni) Metal	0.0–2.0	7440-02-0		
				Phosphorus, yellow (P) Metal	<0.5–1.2	12185-10-3		
				Tin (Sn) Metal	6.0–20.0	7440-31-5		
				Zinc (Zn) Metal	0.0–5.0	7440-66-6		

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	SC025		Copper-Tin-Lead/Leaded Tin Bronze Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Cobalt (Co) Metal	0.0–4.0	7440-48-4		
				Copper (Cu) Metal	78.0–90.0	7440-50-8		
				Lead (Pb) Metal	0.3–6.0	7439-92-1		
				Nickel (Ni) Metal	0.0–4.0	7440-02-0		
				Phosphorus, Yellow (P) Metal	<0.5–1.5	12185-10-3		
				Tin (Sn) Metal	4.5–17.0	7440-31-5		
				Zinc (Zn) Metal	0.0–5.0	7440-66-6		
	SC026		Copper-Tin-Lead/High-Leaded Tin Bronze Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Antimony (Sb) Metal	0.0–0.8	7440-36-0		
				Cobalt (Co) Metal	0.0–1.0	7440-48-4		
				Copper (Cu) Metal	65.0–87.7	7440-50-8		
				Lead (Pb) Metal	2.0–34.0	7439-92-1		
				Nickel (Ni) Metal	0.0–1.0	7440-02-0		
				Phosphorus, Yellow (P) Metal	<0.5–1.5	12185-10-3		
				Tin (Sn) Metal	3.0–14.0	7440-31-5		
				Zinc (Zn) Metal	0.0–4.0	7440-66-6		
	SC027		Copper-Tin-Nickel/Nickel-Tin-Bronze Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Cobalt (Co) Metal	0.0–6.0	7440-48-4		
				Copper (Cu) Metal	79.0–90.0	7440-50-8		
				Lead (Pb) Metal	0.1–6.0	7439-92-1		
				Nickel (Ni) Metal	4.0–6.0	7440-02-0		
				Tin (Sn) Metal	4.0–6.0	7440-31-5		
				Zinc (Zn) Metal	1.0–6.0	7440-66-6		
	SC028		Copper-Aluminum-Iron/Aluminum Bronze/Copper-Aluminum-Iron-Nickel Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al) Metal	0.50–11.5	7429-90-5		
				Cobalt (Co) Metal	0.0–5.5	7440-48-4		
				Copper (Cu) Metal	71.0–91.5	7440-50-8		
				Iron (Fe) Metal	0.5–5.0	1309-37-1		
				Lead (Pb) Metal	0.0–0.25	7439-92-1		
				Manganese (Mn) Metal	0.0–14.0	7439-96-5		
				Nickel (Ni) Metal	0.0–5.5	7440-02-0		
				Silicon (Si) Metal	0.0–3.3	7440-21-3		
				Zinc (Zn) Metal	0.05–2.0	7440-66-6		
	SC032		Copper-Nickel-Iron/Copper-Nickel (with Beryllium) Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Beryllium (Be) Metal	0.4–1.2	7440-41-7		
				Cobalt (Co) Metal	0.0–2.5	7440-48-4		
				Copper (Cu) Metal	62.7–69.8	7440-50-8		

Metal Group	Prod. #	Order	Specific Metal Alloy SDS	Make-up of Alloy Group			Currently Available	Link to AFS Bookstore
				Iron (Fe) Metal	0.4–1.1	1309-37-1		
				Lead (Pb) Metal	0.0–0.01	7439-92-1		
				Manganese (Mn) Metal	0.7–1.0	7439-96-5		
				Nickel (Ni) Metal	29.0–33.0	7440-02-0		
	SC033		Copper-Nickel-Zinc (without Beryllium) Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Cobalt (Co) Metal	Included w/Ni%, Nickel and Cobalt in combination make-up 11.0%–27.0% of the Casting	7440-48-4		
				Copper (Cu) Metal	53.0–67.0	7440-50-8		
				Iron (Fe) Metal	<1.5	7439-92-1		
				Lead (Pb) Metal	1.0–11.0	7439-92-1		
				Manganese (Mn) Metal	0.0–1.0	7439-96-5		
				Nickel (Ni) Metal	11.0–27.0	7440-02-0		
				Tin (Sn) Metal	1.5–5.5	7440-31-5		
				Zinc (Zn) Metal	1.0–25.0	7440-66-6		
	SC034		Copper-Lead Castings/Leaded Copper Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Copper (Cu) Metal	56.5–79.0	7440-50-8		
				Iron (Fe) Metal	0.0–1.0	1309-37-1		
				Lead (Pb) Metal	21.0–33.0	7439-92-1		
				Nickel (Ni) Metal	0.0–0.50	7440-02-0		
				Tin (Sn) Metal	0.0–2.0	7440-31-5		
				Silver (Ag) Metal	0.0–1.5	7440-22-4		
				Zinc (Zn) Metal	0.0–0.50	7440-66-6		
	SC045		Copper-Nickel-Iron/Copper-Nickel Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Beryllium (Be) Metal	0.4–0.7	7440-41-7		
				Cobalt (Co) Metal	9.0–33.0	7440-48-4		
				Copper (Cu) Metal	65.0–87.0	7440-50-8		
				Iron (Fe) Metal	0.25–1.8	1309-37-1		
				Manganese (Mn) Metal	0.05–1.5	7439-96-5		
				Nickel (Ni) Metal	9.0–3.0	7440-02-0		
				Niobium (Nb) / formerly Columbium (Cb) Metal	0.1–1.5	3/1/7440		
				Tin (Sn) Metal	7.5–8.5	7440-31-5		
	SC059		Red Brass (Low Lead)/Selenium-Bismuth Alloy Castings (SebiLOY®)	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Bismuth (Bi) Metal	0.5–3.5	7440-69-9		
				Cobalt (Co) Metal	(Included with Ni%)	7440-48-4		
				Copper (Cu) Metal	85.0–91.0	7440-50-8		
				Lead (Pb) Metal	0.25 (max)	7439-92-1		
				Nickel (Ni) Metal	1.0 (max) Includes Co%	7440-02-0		
				Selenium (Se) Metal	0.35–1.2	7782-49-2		
				Tin (Sn) Metal	2.0–6.5	7440-31-5		
				Zinc (Zn) Metal	2.0–9.0	7440-66-6		

Metal Group	Prod. #	Order	Specific Metal Alloy SDS	Make-up of Alloy Group			Currently Available	Link to AFS Bookstore
Magnesium	SC061		Magnesium-Aluminum-Zinc Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Aluminum (Al) Metal	2.0–14.0	7429-90-5		
				Magnesium (Mg) Metal	Balance	7439-95-4		
				Manganese (Mn) Metal	0.0–1.0	7439-96-5		
				Zinc (Zn) Metal	0.0–7.0	7440-66-6		
	SC062		Magnesium-Yttrium-Rare Earth Metals-Zirconium Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Magnesium (Mg) Metal	Balance	7439-95-4		
				Total Rare Earth (TRE) Metals	1.0–6.00	Various		
				Yttrium (Y) Metal	1.0–10.0	7440-65-5		
				Zirconium (Zr) Metal	0.0–3.00	7440-67-7		
	SC063		Magnesium-Thorium-Zinc-Zirconium Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Magnesium (Mg) Metal	Balance	7439-95-4		
				Thorium (Th) Metal	1.0–6.0	7440-29-1		
				Zinc (Zn) Metal	0.0–9.0	7440-66-6		
				Zirconium (Zr) Metal	0.0–5.0	7440-67-7		
	SC064		Magnesium-Zinc-Rare Earth Metals-Zirconium Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Copper (Cu) Metal	1.0–5.0	7440-50-8		
				Magnesium (Mg) Metal	Balance	7439-95-4		
				Manganese (Mn) Metal	0.0–1.00	7439-96-5		
				Total Rare Earth (TRE) Metals	0.0–6.00	Various		
	SC065		Magnesium-Silver-Rare Earth Metals-Zirconium Alloy Castings	CHEMICAL NAME/COMMON NAME/SYNONYM	Wt %	CAS NUMBER		
				Copper (Cu) Metal	0.0–1.0	7440-50-8		
				Magnesium (Mg) Metal	Balance	7439-95-4		
				Total Rare Earth (TRE) Metals	1.0–5.0	Various		
				Silver (Ag) Metal	1.0–5.0	7440-22-4		
	SC066		Spent Foundry Sand (Silica-based spent sand from iron, steel, and aluminum foundries only.)	CHEMICAL NAME/ COMMON NAME/ SYNONYM	Wt %	CAS NUMBER		
				Crystalline silica (quartz)	>90	14808-60-7		
				Aluminum	0–2	7429-90-5		
				Aluminum oxide	0–2	1344-28-1		
				Calcium oxide	0–6	1305-78-8		
				Iron	0.1–6.4	7439-89-6		

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				Iron oxide	0.1–6.4	1309-37-1		