

2022 Sourcing List

Commodity	Material	Short Description	Short Description (in Chinese) 产品中文简述 仅供参考	Long Description
Chemicals	1000757581	H2S SCAVENGER, POWDER	硫化氢吸收剂	H2S SCAVENGER-ZINC-FREE IRON GLUCONATE ADMIXTURE DRILLING MUD; POWDER FORM,IRON GLUCONATE, FOR SCAVENGES HYDROGEN SULFIDE FROM DRILLING FLUIDS,IRON GLUCONATE, 25 KG (55.1 LBS.) PAIL OR SEALED BAG, VALVE/SPOUT TYPE, COMPLETELY SEALED, MOISTURE AND WATERPROOF. THE CONSTRUCTION OF THE MULTI-WALLED PAPER BAG (CONTAINER) SHALL BE AS FOLLOWS: 1ST PLY 75 LB. MIN. NATURAL KRAFT PAPER (INTERIOR PLY) 2ND PLY 75 LB. MIN. NATURAL KRAFT PAPER 3RD PLY SEPARATE INNER BAG LINER, HIGH DENSITY ORIENTED AND CROSS-LAMINATED INNER POLYETHYLENE RESIN LINER (TUBULAR SHAPE) WITH A MINIMUM WALL THICKNESS OF 0.1 MM. 4TH PLY 80 LB. MIN. NATURAL KRAFT PAPER (EXTERIOR PLY). SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL, H2S SCAVENGER-ZINC-FREE IRON GLUCONATE: A HIGHLY WATER SOLUBLE GRANULAR POWDER OF IRON GLUCONATE WITH NO HAZARDOUS SUBSTANCES AND USED TO SCAVENGE HYDROGEN SULFIDE FROM WATER-BASED AND OIL-BASED DRILLING FLUIDS. CHEMICAL AND PHYSICAL SPECIFICATIONS: PURITY (IRON GLUCONATE): >90%WT. APPEARANCE: LIGHT YELLOW-GREEN GRANULAR POWDER PH (1% DI WATER SOLUTION):4-5.5 SOLUBILITY: 100% SOLUBLE IN WATER ONE LB./BBL. OF PRODUCT REMOVES APPROXIMATELY 150-220 MG/LITER SULFIDES BULK DENSITY: 650-850 KG/M3 @ 68°F (20°C). SAUDI ARAMCO RESERVES THE RIGHT TO COLLECT REPRESENTATIVE PRODUCT SAMPLES AND CONDUCT LABORATORY TESTS TO ENSURE COMPLIANCE WITH THE MATERIAL DESCRIPTION AND SPECIFICATIONS. PRODUCT MANUFACTURER AND/OR SUPPLIER ARE REQUIRED TO SUBMIT LAB CERTIFICATE OF ANALYSIS (COA) AND CERTIFICATE OF ORIGIN (COO) FOR EVERY BATCH. LABEL: PRODUCT NAME, BATCH NUMBER, PRODUCTION DATE, SAP NUMBER, EXPIRATION DATE, AND COUNTRY OF ORIGIN, MANUFACTURER NAME AND CONTACT INFORMATION. HAZCOM ACCORDING TO THE MATERIAL SAFETY DATA SHEET
Chemicals	1000022136	WATER SOLUBLE CORROSION INHIBITOR	水溶性缓蚀剂	ADDITIVE DRILLING FLUID; LIQUID FORM, CORROSION INHIBITOR AND BIOCIDIC, FOR USED AS A PACKER FLUID CORROSION INHIBITOR, LIQUID AMINE WITH METHANOL MICROBIOSTAT, 55 GAL (208 LITER) DRUM SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL, CORROSION INHIBITOR-MICROBIOSTAT: A COMBINED LIQUID BIOCIDIC AND CORROSION INHIBITOR, CATIONIC, WATER SOLUBLE, HETEROCYCLIC AMINE BLENDED WITH METHANOL MICROBIOSTAT TO CONTROL AEROBIC AND ANAEROBIC BACTERIA GROWTH. IT IS USED AS A PACKER FLUID CORROSION INHIBITOR TO CONTROL GENERAL CORROSION ATTACK ON CASING, TUBING AND DOWNHOLE TOOLS IN CONTACT WITH CLEAR AND VISCOSIFIED COMPLETION BRINES. CHEMICAL AND PHYSICAL SPECIFICATIONS: LIGHT (OR PALE) COLORED LIQUID WATER SOLUBLE SPECIFIC GRAVITY @ 68°F (20°C): 0.98 -1.07. SAUDI ARAMCO RESERVES THE RIGHT TO COLLECT REPRESENTATIVE PRODUCT SAMPLES AND CONDUCT LABORATORY TESTS TO ENSURE COMPLIANCE WITH THE MATERIAL DESCRIPTION AND SPECIFICATIONS. PRODUCT MANUFACTURER AND/OR SUPPLIER ARE REQUIRED TO SUBMIT LAB CERTIFICATE OF ANALYSIS (COA) AND CERTIFICATE OF ORIGIN (COO) FOR EVERY BATCH. LABEL: PRODUCT NAME, BATCH NUMBER, PRODUCTION DATE, SAP NUMBER, EXPIRATION DATE, AND COUNTRY OF ORIGIN, MANUFACTURER NAME AND CONTACT INFORMATION. HAZCOM ACCORDING TO THE MATERIAL SAFETY DATA SHEET (MSDS). UOM REFERRED IN THIS MATERIAL IS NET
Chemicals	1000022533	CALCIUM CHLORIDE (77-78%) 2200 lb/BAG	二水氯化钙 (77% Min. purity)	CALCIUM CHLORIDE (77-78%) 1000 KG/BIG BAG ADDITIVE DRILLING FLUID; DRY FLAKES, PELLETS, OR GRANULAR FORM, DRY FLAKES, PELLETS, OR GRANULAR, WATER-SOLUBLE, USED AS WEIGHTING AGENT TO FORMULATE SOLIDS-FREE COMPLETION BRINES AND TO PROVIDE THE DESIRED WATER PHASE SALINITY AND ACTIVITY IN INVERT EMULSION MUDS. IN ADDITION, IT IS USED AS AN ACCELERATOR IN OIL WELL CEMENT SLURRIES. CALCIUM CHLORIDE QUALITY IS MONITORED BY EXPEC ARC LABORATORIES. EXPEC CERTIFICATE OF ACCEPTANCE (EXPEC/COA) REFERRING TO THE RESPECTIVE BATCH NUMBER MUST BE ATTACHED TO EACH SHIPMENT DOCUMENTS ACCEPTED FOR FIELD APPLICATIONS. FOR USED AS WEIGHTING AGENT TO FORMULATE SOLIDS-FREE COMPLETION BRINES AND TO PROVIDE THE DESIRED WATER PHASE SALINITY AND ACTIVITY IN INVERT EMULSION MUDS. IN ADDITION, IT IS USED AS AN ACCELERATOR IN OIL WELL CEMENT SLURRIES. CALCIUM CHLORIDE 77-78%, 1000 KG (2204 LBS) MULTI-WALL MOISTURE-PROOF POLYETHYLENE LINED BAGS WITH LIFTING STRAPS, WITHOUT BOTTOM SPOUT. LIFTING STRAP, BAG IS DISPOSABLE, TOP CLOSURE WATERTIGHT, STACKABLE. MINIMUM TENSILE STRENGTH FACTOR 5, FLEXURAL STRENGTH FOR NORMAL HANDLING AND OUTSIDE STORAGE. THE DISPOSABLE SUPER SACKS SHOULD HAVE AT LEAST 75% OF THEIR SHELF LIFE REMAINING (THE PERIOD FROM DATE OF MANUFACTURING TO THE WARRANTED EXPIRATION DATE) WHEN SHIPPED OR RECEIVED AT DESIGNATED PLACE OF DELIVERY TO SAUDI ARAMCO. REFER TO SAP NUMBER: 1000840600 FOR # DISPOSABLE SUPER SACKS SPECIFICATIONS. SUPPLIERS ARE REQUIRED TO WEIGH THE TRUCKS BEFORE AND AFTER LOADING AND SUBMIT TO MATERIAL SUPPLY AN OFFICIAL TICKET PRINT DATA STATING: DATE AND TIME, COMPANY AND ADDRESS, TRUCK IDENTITY NUMBER, MATERIAL NAME, TRUCK WEIGHT BEFORE AND AFTER LOADING. SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL, ASTM D98-68/PRACTICE E29 / ASTM D345 - 02(2010) STANDARD TEST METHOD FOR CACL2 SAMPLING AND TESTING, CHEMICAL AND PHYSICAL SPECIFICATIONS APPEARANCE: DRY FREE FLOWING WHITE FLAKES OR PELLETS -PURITY: CACL2 77% WT. MINIMUM PASS THROUGH 7/16 IN SCREEN: 100%WT. NO PARTICLES GREATER THAN 11MM IN ANY DIMENSION. ALKALI CHLORIDES AS NACL: 7% WT. MAXIMUM AND MGCL2: 1% WT. MAXIMUM HEAVY METALS AS PB: 0.005% WT. MAXIMUM. - SULFATE AS CASO4: 0.05% WT. MAXIMUM. FE: 15 PPM MAXIMUM WATER INSOLUBLE: 0.20% WT. MAXIMUM. REMAINING COMPONENTS IN WATER OF

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Chemicals	1000022538	CALCIUM CHLORIDE (94-98%) 2200 lb/BAG	无水氯化钙 (94% Min. purity)	<p>CALCIUM CHLORIDE (94-98%) 1000 KG/BIG BAG ADDITIVE DRILLING FLUID; DRY FLAKES, PELLETS, OR GRANULAR FORM, DRY FLAKES, PELLETS, OR GRANULAR, WATER-SOLUBLE USED AS WEIGHTING AGENT FOR FORMULATING SOLIDS-FREE COMPLETION BRINES AND TO PROVIDE THE DESIRED WATER PHASE SALINITY AND ACTIVITY IN INVERT EMULSION MUDS IN ADDITION, IT IS USED AS AN ACCELERATOR IN OIL WELL CEMENT SLURRIES. CALCIUM CHLORIDE QUALITY IS MONITORED BY EXPEC ARC LABORATORIES. EXPEC CERTIFICATE OF ACCEPTANCE (EXPEC/COA) REFERRING TO THE RESPECTIVE BATCH NUMBER MUST BE ATTACHED TO EACH SHIPMENT DOCUMENTS ACCEPTED FOR FIELD APPLICATIONS., FOR USED AS WEIGHTING AGENT FOR FORMULATING SOLIDS-FREE COMPLETION BRINES AND TO PROVIDE THE DESIRED WATER PHASE SALINITY AND ACTIVITY IN INVERT EMULSION MUDS IN ADDITION, IT IS USED AS AN ACCELERATOR IN OIL WELL CEMENT SLURRIES, CALCIUM CHLORIDE 94-98%, 1000 KG (2204 LBS.) MULTI-WALL MOISTURE-PROOF POLYETHYLENE LINED BAGS WITH LIFTING STRAPS, WITHOUT BOTTOM SPOUT. LIFTING STRAP BAG IS DISPOSABLE, TOP CLOSURE WATERTIGHT, STACKABLE. MINIMUM TENSILE STRENGTH FACTOR 5, FLEXURAL STRENGTH FOR NORMAL HANDLING &amp; OUTSIDE STORAGE. THE DISPOSABLE SUPER SACKS SHOULD HAVE AT LEAST 75% OF THEIR SHELF LIFE REMAINING (THE PERIOD FROM DATE OF MANUFACTURING TO THE WARRANTED EXPIRATION DATE) WHEN SHIPPED OR RECEIVED AT DESIGNATED PLACE OF DELIVERY TO SAUDI ARAMCO. REFER TO SAP NUMBER: 1000840600 FOR # DISPOSABLE SUPER SACKS SPECIFICATIONS. SUPPLIERS ARE REQUIRED TO WEIGHT THE TRUCKS BEFORE AND AFTER LOADING AND SUBMIT TO MATERIAL SUPPLY AN OFFICIAL TICKET PRINT DATA STATING: DATE AND TIME, COMPANY AND ADDRESS, TRUCK IDENTITY NUMBER, MATERIAL NAME, TRUCK WEIGHT BEFORE AND AFTER LOADING. SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL, ASTM D98-68/PRACTICE E29 / ASTM D345 - 02 (2010) STANDARD TEST METHOD FOR CACL2 SAMPLING AND TESTING, CHEMICAL AND PHYSICAL SPECIFICATIONS APPEARANCE: DRY FREE FLOWING WHITE FLAKES OR PELLETS - PURITY: CACL2 94 %WT. MINIMUM PASS THROUGH 4 MESH SCREEN: 100%WT. NO PARTICLES GREATER THAN 4.5MM IN ANY DIMENSION ALKALI CHLORIDES AS NACL: 5.0%WT. MAXIMUM - AS MGCL2: 0.5%WT. MAXIMUM HEAVY METALS AS PB: 0.005%WT. MAXIMUM SULFATE AS CASO4: 0.05%WT. MAXIMUM FE: 15 PPM MAXIMUM WATER INSOLUBLE: 0.20%WT. MAXIMUM REMAINING COMPONENT IS WATER OF CRYSTALLIZATION BY 10% CALCIUM BROMIDE (CABR2) DRY 95%</p>
Chemicals	1001129231	Anhydrous Calcium Bromide Dry	无水溴化钙 (95% Min.purity)	<p>ADDITIVE DRILLING FLUID; WHITE FREE FLOWING POWDER, CRYSTALLINE OR GRANULAR FORM, CALCIUM BROMIDE (CABR2) DRY 95%, FOR WHITE FREE FLOWING POWDER, CRYSTALLINE OR GRANULAR WITH NO LUMPS, CALCIUM BROMIDE SALT USED FOR PREPARING COMPLETION FLUIDS AS A SINGLE CABR2 SALT SOLUTION WITH MINIMUM DENSITY OF 1.70 GM/CC, AND CAN BE BLENDED WITH ZINC BROMIDE AND CALCIUM CHLORIDE SOLUT, CALCIUM BROMIDE (CABR2) DRY 95%, 25 KG (55.1 LB) BAG (NET WEIGHT), WHITE FREE FLOWING POWDER, CRYSTALLINE OR GRANULAR WITH NO LUMPS, CALCIUM BROMIDE SALT USED FOR PREPARING COMPLETION FLUIDS AS A SINGLE CABR2 SALT SOLUTION WITH MINIMUM DENSITY OF 1.70 GM/CC, AND CAN BE BLENDED WITH ZINC BROMIDE AND CALCIUM CHLORIDE SOLUTIONS TO FORMULATE, SOLIDS-FREE NON-DAMAGING HIGH-DENSITY BRINE BLENDS WITH DENSITIES UP TO 143 PCF (19.1 LB/GAL). APPEARANCE: WHITE FREE FLOWING POWDER CRYSTALLINE OR GRANULAR, NO LUMPS SATURATED BRINDE SOLUTION: CLEAR COLORLESS PURITY AS CABR2, PERCENT 95 MINIMUM SG AT 77 DEG F (25 DEG C): 3.2 - 3.4 SOLUBILITY IN WATER AT 68 DEG F (20 DEG C), W/F PERCENT 58 MINIMUM IRON, PPM: 10 MAXIMUM CHLORIDE AS CA CL2, W/F PERCENT 1.5 MAXIMUM SULFATE, PPM: 200 MAXIMUM HEAVY METALS, PPM: PB: 5 MAXIMUM HG: 1 MAXIMUM AS: 5 MAXIMUM CD: 5 MAXIMUM SAUDI ARAMCO RESERVES THE RIGHT TO COLLECT REPRESENTATIVE PRODUCT SAMPLES AND CONDUCT LABORATORY TESTS TO ENSURE COMPLIANCE WITH THE MATERIAL DESCRIPTION AND SPECIFICATIONS. PRODUCT MANUFACTURER AND OR SUPPLIER ARE REQUIRED TO SUBMIT LAB CERTIFICATE OF ANALYSIS FOR EVERY BATCH (COA) AND CERTIFICATE OF ORIGIN (COO). PRODUCT MANUFACTURER AND/OR SUPPLIER ARE REQUIRED TO SUBMIT LAB CERTIFICATE OF ANALYSIS (COA) AND CERTIFICATE OF ORIGIN (COO) FOR EVERY BATCH. UOM REFERRED IN THIS MATERIAL IS NET VOLUME/WEIGHT. LABEL: PRODUCT NAME, BATCH NUMBER, PRODUCTION DATE, SAP NUMBER, EXPIRATION DATE, AND COUNTRY OF ORIGIN, MANUFACTURER NAME AND CONTACT INFORMATION. HAZCOM ACCORDING TO</p>
Chemicals	1001130337	Radiagreen EME Salt	酯基润滑剂	<p>EXTREME LUBRICANT FOR UNDERBALANCE COILED TUBING DRILLING ADDITIVE DRILLING FLUID; YELLOW TO DARK AMBER LIQUID FORM, BLEND OF FATTY AMIDES ACID AND ESTERS, OR POLYOL ESTER OF FATTY ACIDS, FOR COMBUSTIBLE AMBER LIQUID BLEND OF POLYMERIZED FATTY AMIDE, ACID AND ESTER, OR POLYOL ESTER OF FATTY ACID USED IN SOLIDS-FREE DRILL-IN FLUIDS OR MONOVALENT BRINES TO REDUCE TORQUE AND DRAG IN HIGHLY TORTUOUS OR EXTENDED REACH WELLS, INCLUDING COILED TUBING, BLEND OF FATTY AMIDES ACID AND ESTERS, OR POLYOL ESTER OF FATTY ACIDS, 55 GAL (208 LITER) DRUM (NET VOLUME), APPEARANCE: YELLOW TO DARK AMBER. SWEET AND MILD ODOR SOLUBILITY IN WATER: INSOLUBLE IN WATER SPECIFIC GRAVITY AT THE RANGE BETWEEN 68F (20C): 0.95 - 1.05 FLASH POINT (PMCC): GREATER THAN 212F (100C) IT WILL NOT GREASE OR PHASE OUT. SAUDI ARAMCO RESERVES THE RIGHT TO COLLECT REPRESENTATIVE PRODUCT SAMPLES AND CONDUCT LABORATORY TESTS TO ENSURE COMPLIANCE WITH THE MATERIAL DESCRIPTION AND SPECIFICATIONS. PRODUCT MANUFACTURER AND/OR SUPPLIER ARE REQUIRED TO SUBMIT LAB CERTIFICATE OF ANALYSIS (COA) AND CERTIFICATE OF ORIGIN (COO) FOR EVERY BATCH. UOM REFERRED IN THIS MATERIAL IS NET VOLUME/WEIGHT. LABEL: PRODUCT NAME, BATCH NUMBER, PRODUCTION DATE, SAP NUMBER, EXPIRATION DATE, AND COUNTRY OF ORIGIN, MANUFACTURER NAME AND CONTACT INFORMATION. HAZCOM ACCORDING TO THE MATERIAL SAFETY DATA SHEET MSDS. IT IS NON-DAMAGING TO PRODUCING ZONES, NON-TOXIC, ENVIRONMENTALLY FRIENDLY AND HELPS PREVENT BIT BALLING AND DIFFERENTIAL STICKING. THE PRODUCT IS COMPATIBLE WITH SEAWATER AND MONOVALENT BRINE-BASED DRILLING FLUIDS. OTHER ASSOCIATED ELEMENTS MUST NOT BE HARMFUL TO PERSONNEL AND/OR ADVERSELY</p>
Chemicals	1000823699	THINNER OBM	油基泥浆体系降粘剂	<p>THINNER/DISPERSANT-OBM CONDITIONER ADDITIVE DRILLING FLUID; LIQUID FORM, SULFONATE BLEND WITH FATTY ACID, FOR USED TO LOWER RHEOLOGICAL PROPERTIES OF OIL BASE FLUIDS., POLYOLEFIN/ORGANIC SULFONATE BLEND WITH FATTY ACID, 55 GALLON (208 LITER) DRUM. SHIPMENT OF PRODUCTS MUST CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL. THINNER/DISPERSANT-OIL-BASE MUD CONDITIONER: LIQUID POLYOLEFIN/ORGANIC SULFONATE BLEND WITH FATTY ACID DERIVATIVES USED TO LOWER RHEOLOGICAL PROPERTIES FOR OIL BASE FLUIDS. OTHER ASSOCIATED ELEMENTS MUST NOT BE HARMFUL TO PERSONNEL AND/OR ADVERSELY AFFECT FLUID PROPERTIES. CHEMICAL AND PHYSICAL SPECIFICATIONS: APPEARANCE: DARK AMBER LIQUID SOLUBILITY: INSOLUBLE IN WATER SPECIFIC GRAVITY: 0.90 - 0.96 FLASH POINT (PMCC): &gt; 212°F (100°C) SAUDI ARAMCO RESERVES THE RIGHT TO COLLECT REPRESENTATIVE PRODUCT SAMPLES AND CONDUCT LABORATORY TESTS TO ENSURE COMPLIANCE WITH THE MATERIAL DESCRIPTION AND SPECIFICATIONS. PRODUCT MANUFACTURER AND OR SUPPLIER ARE REQUIRED TO SUBMIT LAB CERTIFICATE OF ANALYSIS FOR EVERY BATCH (COA) AND CERTIFICATE OF ORIGIN (COO). LABEL: PRODUCT NAME, BATCH NUMBER, PRODUCTION DATE, EXPIRATION DATE, SAP NUMBER AND COUNTRY OF ORIGIN, MANUFACTURER NAME AND CONTACT INFORMATION. HAZCOM ACCORDING TO THE MATERIAL SAFETY DATA SHEET (MSDS) UOM REFERRED IN THIS MATERIAL IS NET VOLUME/WEIGHT</p>

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Chemicals	1000021672	HYDROXY ETHYL CELLULOSE (HEC)	羧乙基纤维素	<p>HYDROXY ETHYL CELLULOSE (HEC) ADDITIVE DRILLING FLUID; DRY FREE FLOWING WHITE POWDER FORM, HYDROXY ETHYL CELLULOSE (HEC), FOR MULTI-PURPOSE VISCOSIFYING POLYMER FOR FRESHWATER, SEA WATER SALT SATURATED WATER AND COMPLEX BRINE SYSTEMS, HYDROXY ETHYL CELLULOSE (HEC), 50 LBS. (22.7 KG). MULTI-WALLED PAPER BAG, VALVE/SPOUT TYPE, COMPLETELY SEALED, MOISTURE AND WATER PROOF. THE CONSTRUCTION OF THE MULTI-WALLED PAPER BAG SHALL BE AS FOLLOWS: 1ST PLY (INTERIOR PLY) 10# COATING 0.00285 MICRON ALUMINUM SHEET 6# PE COATING 50 LB NATURAL KRAFT PAPER THE ALUMINUM SHEET IS COATED ON ONE SIDE WITH 10# PE THE 10# IS NEXT TO THE PRODUCT. THE COATED ALUMINUM SHEET LAMINATED TO THE 50 LB KRAFT PAPER. 2ND PLY 50 LB NATURAL KRAFT PAPER. 3RD PLY 50 LB NATURAL KRAFT PAPER. 4TH PLY 50 LB BLEACH WHITE NATURAL KRAFT PAPER (EXTERIOR PLY). THE BLEACHED PAPER IS "FULLY BLEACHED WHITE". SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL, HEC-HYDROXY ETHYL CELLULOSE: IS A NON-IONIC POLYMER, DRY FREE FLOWING WHITE POWDER DISPERSES EASILY AND RAPIDLY DISSOLVES IN FRESH WATER, SEA WATER, SALT SATURATED BRINE AND COMPLEX DIVALENT BRINE BLENDS TO DEVELOP VISCOSITY RELATED CHARACTERISTICS FOR DRILLING AND COMPLETION FLUIDS THAT IMPART MINIMUM FORMATION DAMAGE. THE HEC SHOULD BE EASILY BROKEN WITH ACID, ENZYMES, OR OXIDIZING AGENTS TO MAXIMIZE THE POTENTIAL FOR HYDROCARBON RECOVERY AND SHOULD BE STABLE AT TEMPERATURES UP TO 250°F (121°C). CHEMICAL AND PHYSICAL SPECIFICATIONS: APPEARANCE: WHITE TO CREAM-COLORED HYDROXYETHYLCELLULOSE (HEC) SHALL NOT CONTAIN ANY STARCH, GUAR OR ANY OTHER POLYMERS OR THEIR DERIVATIVES. MOISTURE: 8%WT. MAXIMUM SPECIFIC GRAVITY: 1.38-1.40 PARTICLE SIZE: PASS THROUGH U.S. 20 MESH SCREEN (840 MICRON)- 100% 1% WT. SOLUTION IN DEIONIZED WATER BROOKFIELD SPINDLE #4, 30 RPM. (ASTM D 2196-91)- VISCOSITY AT 77°F (25°C): 4,400-6,500 PH @ 77°F (25°C): 6-7 SAUDI ARAMCO RESERVES THE RIGHT TO COLLECT REPRESENTATIVE PRODUCT SAMPLES AND CONDUCT LABORATORY TESTS TO ENSURE COMPLIANCE WITH THE MATERIAL DESCRIPTION AND SPECIFICATIONS. PRODUCT MANUFACTURER AND/OR SUPPLIER ARE REQUIRED TO SUBMIT LAB CERTIFICATE OF ANALYSIS (COA) AND CERTIFICATE OF ORIGIN (COO) FOR EVERY BATCH. LABEL: PRODUCT NAME, BATCH NUMBER, PRODUCTION DATE, SAP NUMBER, EXPIRATION DATE, ADMIXTURE DRILLING MUD; ANY DRILLING FLUIDS SYSTEM OR PRODUCT USED AS WATER BASED MUD(WBM) OR OIL BASED MUD (OBM) OR FOR SPECIAL APPLICATION TO DRILL THE RESERVOIR OR NON-RESERVOIR HOLE SECTIONS. EXAMPLES NON-CONVENTIONAL LCM, HIGH OVER BALANCE MUD SYSTEM, SHALE INHIBITION MUD SYSTEM, RESERVOIR DRILL IN FLUID(RDF), FILTER CAKE REMOVAL SYSTEM, HIGH PERFORMANCE WATER BASE MUD (HPWBM), HIGH PERFORMANCE OIL BASE MUD (HPOBM), SPACER CLEANING SYSTEM</p>
Chemicals	6000016483	Flat Rheology Oil Based Systems (FROBS).	油基泥浆体系	<p>CALCIUM BROMIDE (CaBr2) SOLUTION ADDITIVE DRILLING FLUID; SINGLE SALT (CaBr2), SOLIDS-FREE BRINE FORM, CALCIUM BROMIDE (CaBr2), FOR A PURE SOLIDS-FREE BRINE USED IN COMPLETION FLUIDS AND CAN BE BLENDED WITH ZINC/CALCIUM BROMIDE AND CALCIUM CHLORIDE SOLUTIONS TO FORMULATE NON-DAMAGING FLUIDS OF DENSITIES UP TO 143 PCF (19.1 LB/GAL), CALCIUM BROMIDE, 55 GAL (208 LITER) 340 KG POLYPROPYLENE-LINED STEEL DRUMS SHIPMENT OF PRODUCTS MUST CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL, REFER TO API 131 FIFTH EDITION, OCTOBER 2014, CALCIUM BROMIDE SOLUTION (CaBr2): PURE, SOLIDS-FREE BRINE USED FOR PREPARING COMPLETION FLUIDS AS A SINGLE CaBr2 SALT SOLUTION WITH MINIMUM DENSITY OF 1.70 GM/CC, AND CAN BE BLENDED WITH ZINC BROMIDE AND CALCIUM CHLORIDE SOLUTIONS TO FORMULATE, SOLIDS-FREE NON-DAMAGING HIGH DENSITY BRINE BLENDS WITH DENSITIES UP TO 143 PCF (19.1 LB/GAL), CHEMICAL AND PHYSICAL SPECIFICATIONS: CALCIUM BROMIDE (CaBr2) SOLUTION 52% WT. MINIMUM COLORLESS, CLEAR LIQUID WITH NO ODOR CHLORIDE CONTENT: 1000 PPM (0.1% WT.) MAXIMUM TURBIDITY: 6 NTU MAXIMUM SULPHATE CONTENT: 100 PPM (0.01% WT.) MAXIMUM IRON CONTENT: 5 PPM MAXIMUM TOTAL HEAVY METALS (ZN, PB, HG, AS AND CD): 5 PPM MAXIMUM DENSITY: 1.70 GM/CC (14.2 LB/GAL / 106.2 PCF) AT 70°F (20.1°C) MINIMUM PH OF 10% SOLUTION IN DI WATER: [BASIC.] 7- 8.5 TRUE CRYSTALLIZATION TEMPERATURE (TCT): 10°F (-12.2°C) SOLIDS RETAINED ON 5 MICRONS FILTER PAPER: NONE SAUDI ARAMCO RESERVES THE RIGHT TO COLLECT REPRESENTATIVE PRODUCT SAMPLES AND CONDUCT LABORATORY TESTS TO ENSURE COMPLIANCE WITH THE MATERIAL DESCRIPTION AND SPECIFICATIONS. PRODUCT MANUFACTURER AND OR SUPPLIER ARE REQUIRED TO SUBMIT LAB CERTIFICATE OF ANALYSIS FOR EVERY BATCH (COA) AND CERTIFICATE OF ORIGIN (COO). LABEL: PRODUCT NAME, BATCH NUMBER, PRODUCTION DATE, SAP NUMBER, EXPIRATION DATE, AND COUNTRY OF ORIGIN, MANUFACTURER NAME AND CONTACT INFORMATION. HAZCOM ACCORDING TO THE MATERIAL SAFETY DATA SHEET (MSDS). "UOM REFERRED IN THIS MATERIAL IS NET VOLUME/WEIGHT"</p>
Chemicals	1000021557	CALCIUM BROMIDE (SOL 53% WT MINIMUM)	溴化钙溶液 (52% Min.)	<p>MICROMAX – MANGANESE TETROXIDE ADDITIVE DRILLING FLUID; FINE REDDISH BROWN POWDER FORM, FINE REDDISH BROWN POWDER OF MANGANESE TETROXIDE (MN3O4) WITH AVERAGE SPHERICAL PARTICLE DIAMETER 0.5 – 2 MICRONS. IT IS USED AS WEIGHT MATERIAL IN DRILLING, COMPLETION AND CEMENTING FLUIDS TO REACH HIGH DENSITY DRILLING FLUIDS WITH LOW EQUIVALENT CIRCULATING DENSITY (ECD), MINIMAL SAG AND CAUSE LESS FORMATION DAMAGE. THE CHEMICAL AND ITS ASSOCIATED ELEMENTS MUST NOT BE HARMFUL TO PERSONNEL AND/OR PROPERTIES, FOR USED AS WEIGHT MATERIAL IN DRILLING, COMPLETION AND CEMENTING FLUIDS, MANGANESE TETROXIDE, 1000 KG (2204 LBS.) MULTI-WALL MOISTURE-PROOF POLYETHYLENE LINED BAGS WITH LIFTING STRAPS, WITHOUT BOTTOM SPOUT. LIFTING STRAP BAG IS DISPOSABLE, TOP CLOSURE WATER TIGHT, STACKABLE. MINIMUM TENSILE STRENGTH FACTOR 5, FLEXURAL STRENGTH FOR NORMAL HANDLING &amp; OUTSIDE STORAGE. THE DISPOSABLE SUPER SACKS SHOULD HAVE AT LEAST 75% OF THEIR SHELF LIFE REMAINING (THE PERIOD FROM DATE OF MANUFACTURING TO THE WARRANTED EXPIRATION DATE) WHEN SHIPPED OR RECEIVED AT DESIGNATED PLACE OF DELIVERY TO SAUDI ARAMCO. REFER TO SAP NUMBER: 100804600 FOR DISPOSABLE SUPER SACKS SPECIFICATIONS. SUPPLIERS ARE REQUIRED TO WEIGHT THE TRUCKS BEFORE AND AFTER LOADING AND SUBMIT TO MATERIAL SUPPLY AN OFFICIAL TICKET PRINT DATA STATING: DATE AND TIME COMPANY AND ADDRESS, TRUCK IDENTITY NUMBER, MATERIAL NAME, TRUCK WEIGHT BEFORE AND AFTER LOADING. SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL, APPEARANCE: REDDISH-BROWN POWD, CHEMICAL AND PHYSICAL SPECIFICATIONS APPEARANCE: FINE REDDISH BROWN POWDER, ODORLESS. MN3O4: 85%WT MINIMUM FE CONTENT: 4.5%WT MAXIMUM PARTICLE DIAMETER: D90 LESS THAN 5 MICRONS AND D50 0.5 – 2 MICRONS, SOLUBILITY IN WATER: INSOLUBLE, PH (5G IN 50 ML DI WATER): 7 – 10.5, SPECIFIC GRAVITY @ 68 DEG F (20 DEG C): 4.8, MINIMUM BULK DENSITY: 84 LB/FT3 (950-1050 KG/M3), SURFACE AREA: 1 – 5 M2/G. MICROMAX IS ONLY SLIGHTLY SOLUBLE IN ORGANICA ACIDS SUCH AS CITRIC ACID, AND IT MUST NOT BE TREATED WITH HYDROCHLORIC ACID (HCL), BECAUSE THE REACTION PRODUCES CHLORINE GAS. SAUDI ARAMCO RESERVES THE RIGHT TO COLLECT REPRESENTATIVE PRODUCT SAMPLES AND CONDUCT LABORATORY TESTS TO ENSURE COMPLIANCE WITH THE MATERIAL DESCRIPTION AND SPECIFICATIONS. PRODUCT MANUFACTURER AND/OR SUPPLIER ARE REQUIRED</p>
Chemicals	1000845612	MANGANESE TETRAOXIDE - BAG	四氧化三锰	<p>UNIT; ANY TYPE, EXPANDABLE CASING &amp; ACCESSORIES</p>
Drilling Equipment	6000010721	16" X 18 5/8" Expandable Pipe System	可膨胀管道系统	UNIT; ANY TYPE, EXPANDABLE CASING & ACCESSORIES
Drilling Equipment	6000010721	16" X 18 5/8" Expandable Pipe System	可膨胀管道系统	UNIT; ANY TYPE, EXPANDABLE CASING & ACCESSORIES
Drilling Equipment	6000015784	9-5/8" X 7" Multilateral System, LEVEL 4, 3 DEG	分支井工具系统	LATERAL; ANY NPS, ANY, LATERALS AND ACCESSORIES EQUIPMENT
Drilling Equipment	6000004089	9-5/8" OH EXPANDABLE LATCH ANCHOR (Whipstock)	斜向器	WHIPSTOCK; RETRIEVABLE TYPE, ANY CSNG DRE, DRILLING OPERATIONS

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Drilling Equipment	600000403	7" Single String ICD Installation	ICD系统组件	CEMENTER; ANY TOOL OD,ANY DRILL OD,MULTI STAGE INFLATABLE AND MECHANICAL PACKER FOR CEMENTING (DV)
Drilling Equipment	600000404	7" Isolation PACKER, EXPANDABLE WAB, 8.189"OD	封隔器系统组件	PACKER; ANY TYPE,MECHANICAL, SWELLABLE, ISOLATION PACKERS
Drilling Equipment	6000010715	Tracer Subs system ( 3-1/2" & 4-1/2")	井下系统组件	PACKER; ANY TYPE,EQUALIZER, SAND SCREENS, ACCESSORIES, VARIOUS
Electrical	6000001011	POWER SUPPLY;ELECTRICAL;SOLAR,CP	供电电源, 太阳能类型, 阴极保护	POWER SUPPLY ELECTRICAL; CATHODIC PROTECTION POWER PLY ELECTRICAL SOLAR POWER TYPE,ANY POWER,ANY 17-SAMSS-012
Electrical	6000012080	BOX: JUNCTION, FOR U/G ANODE BED,CP	接线盒, 阴极保护	BOX ELECTRICAL; CATHODIC PROTECTION UNDERGROUND ANODE BED JUNCTION BOX TYPE,SIZE 2500CM3 (MINIMUM),CYLINDRICAL OR BOX SHAPE,12X16MM2 AND 2X70MM2 CONNECT,1.2+2 TERMINAL SCREW LUG COONECTN,FOR WEATHERPROOF (DIRECT BURIAL),NON-CLASSIFIED,NON-METALLIC SUITABLE FOR DIRECT BURIAL AND IMMERSION SERVICE IN AMBIENT TEMPERATURE SEAWATER,OPTIONAL FINISH,OPTIONAL THK,17-SAMSS-008 JUNCTION BOX FOR CATHODIC PROTECTION, MEMBRANE GLANDS & FILLER/ SEALING COMPOUND SUITABLE FOR DIRECT BURIAL AND IMMERSION SERVICE IN AMBIENT TEMPERATURE SEAWATE
Electrical	6000011555	UPS SYSTEM ABOVE 200 KVA	不间断供电电源 大于200KVA	POWER SUPPLY UNINTERRUPTIBLE; ABOVE 200 KVA POWER,17-SAMSS-516,SAES-P-103
Electrical	6000012042	UPS SYS ABOVE 10 TO 200KVA FOR IT & COMM	不间断供电电源 10 TO 200KVA	POWER SUPPLY UNINTERRUPTIBLE; ABOVE 10 KVA UP TO 200 KVA POWER,17-SAMSS-516,SAES-P-103,MANUFACTURER STANDARD PRODUCT, IT & COMMUNICATION PRODUCT RANGE
Electrical	6000015902	UNIT; MOBILE SUBSTATION	移动变电站	UNIT; MOBILE SUBSTATION TYPE, TMSS-01,35-TMSS-1 TMSS-10,46-TMSS-6 TMSS-1,31-TMSS-2 TMSS-2,32-TMSS-3 51-TMSS-1,37-TMSS-1 TMSS-03,11-SDMS-03 54-TMSS-1,MOBILE SUBSTATION AS PER ATTACHED TECHNICAL SPECIFICATION, BASED ON SEC STANDARDS.ASCOPE INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING: ENGINEERING, DESIGN, MANUFACTURING, ASSEMBLING, FACTORY TESTING, DELIVERY TO KSA, MINISTRY OF TRANSPORT APPROVAL, DOCUMENTATION,#SPARE PARTS CATALOGUE, SUPPLY OF CRITICAL SPARE PARTS FOR COMMISSIONING, SITE PRE-COMMISSIONING.#
Electrical	6000016594	CAPACITOR BANK	电容器组	UNIT; SHUNT CAPACITOR TYPE,43-TMSS-01,SAES-P-116,POWER FACTOR CORRECTION CAPACITOR BANK 4.16KV THROUGH 380KV
Electrical	6000017620	UNIT, PREFABRICATED SUBSTATION, Yes, Yes	变电站	UNIT; PREFABRICATED SUBSTATION TYPE,16-SAMSS-524,PREFABRICATED SUBSTATIONS RATED UP TO 52KV FOR OFFSHORE AND ONSHORE
Electrical	6000000903	SWITCH; DISCONNECT; HIGH VOLTAGE;	高压隔离开关	SWITCH DISCONNECT; HIGH VOLTAGE,ANY ACTION,ELECTRICAL TYPE,30-TMSS-01
Electrical	6000015923	BUS; ISOLATED PHASE BUS DUCT	封闭隔离母线	BUS; SIZE ANY,ANY,16-SAMSS-523,ISOLATED PHASE BUS DUCT
Electrical	6000016991	UNIT; MOBILE SUBSTATION; 69KV AND BELOW	移动变电站	UNIT; MOBILE SUBSTATION TYPE,OPERATING AT 69KV AND BELOW
Electrical	6000017680	COATING, ELECTRICAL INSULATORS, HIGH VOL	高压绝缘子	COATING; ELECTRICAL INSULATORS TYPE, FOR HIGH VOLTAGE,SILICON
Electrical	6000012401	OHL COMPOSITE INSULATOR FOR T & D	绝缘子	INSULATOR TRANSMISSION & DISTRIBUTION; OHL COMPOSITE TYPE,UP TO 230 KV,15-SDMS-02,15-TMSS-5
Electrical	6000000774	TRAY; CABLE, FIBERGLASS	玻璃钢桥架	TRAY; CABLE TYPE,FIBERGLASS,NEMA FG-1,S-P-104 SEC. 9
Electrical	6000014870	POLE LINE; POWER TRANSMISSION, 69 KV	电线杆, 69kv	POLE LINE; POWER TRANSMISSION TYPE,ANY LG,TAPERED TUBULAR STEEL SHAPE,GALVANIZED STEEL,SEC 20-TMSS-02,RATED 69 KV AND UP.
Electrical	6000010128	SUBMARINE,POWER CABLE,69 KV THRU 230 KV	海底电缆 69 KV - 230 KV	CABLE ELECTRICAL HIGH VOLTAGE; 69 KV THROUGH 230 KV SUPPLY,ANY CONDUCTO,SUBMARINE POWER CABLE TYPE,COPPER CONDUCTO,POWER TYPE 15-SAMSS-504
Electrical	6000000999	FORM-WOUND BRUSHLESS SYNCH. MOTOR	无刷同步电机	MOTOR SYNCHRONOUS; 500 HP MINIMUM POWER,4000 V MINIMUM,3 PHASE PHASE HORIZONTAL MTG,17-SAMSS-520
Electrical	6000001014	CP,POWER SUPPLY;RECTIFIER;IMPRESSED CURR	电源, 阴极保护	RECTIFIER IMPRESSED CURRENT; HODIC PROTECTION SE CONTROL TYPE,ANY OUTPUT,17-SAMSS-005
Instrumentation and IT	6000002655	ANALYZER; BOTTOM SEDIMENT AND WATER;	水质分析仪	ANALYZER; BOTTOM SEDIMENT AND WATER TYPE,ANY RANGE,TO BE USED FOR LIQUID SERVICE APPLICATION ONLY NOT IN MULTI-PHASE SERVICE
Instrumentation and IT	6000002677	FLOWMETER; ANNUBAR; PITOT TUBE;	均速管流量计	FLOWMETER; ANNUBAR, PITOT TUBE TYPE
Instrumentation and IT	6000002689	CALIBRATION GAS CYLINDER FOR GAS MONITOR	气体探测器 校验气缸	CYLINDER; CALIBRATION GAS TYPE,SIZE ANY,ANY,FOR COMBUSTIBLE & TOXIC GAS MONITORS ONLY
Instrumentation and IT	6000002742	FLOWMETER;FOR REDUCE PIPING REQUIREMENTS	缩颈要求的流量计	FLOWMETER; 34-SAMSS-010,SPECIALTY FLOWMETER FOR REDUCING PIPING REQUIREMENTS
Instrumentation and IT	6000002782	MONITOR; GAS; COMBUSTIBLE	可燃气体探测器	MONITOR GAS; COMBUSTIBLE,ANY RANGE,34-SAMSS-514
Instrumentation and IT	6000002786	MONITOR; GAS; HYDROGEN SULFIDE;	硫化氢气体探测器	MONITOR GAS; HYDROGEN SULFIDE,ANY RANGE,34-SAMSS-514
Instrumentation and IT	6000002787	MONITOR; GAS; COMBUSTIBLE; OPEN PATH TYP	开路式可燃气体探测器	MONITOR GAS; COMBUSTIBLE,ANY RANGE,34-SAMSS-514,OPEN PATH TYPE
Instrumentation and IT	6000002886	GAUGE; LEVEL; GLASS	玻璃液位表	GAUGE LEVEL; GLASS TYPE,34-SAMSS-010,WITH BACKFLOW PREVENTER VALVE OR CHECK VALVE AS ASSEMBLY IF REQUIRED
Instrumentation and IT	6000002925	ANALYZER; NIR SPECTROMETER;	近红外光谱分析仪	ANALYZER; NIR SPECTROMETER TYPE,ANY RANGE.
Instrumentation and IT	6000002926	TRANSMITTER; MULTIVARIABLE;	多变量变送器	TRANSMITTER; MULTIVARIABLE TYPE,ANY RANGE
Instrumentation and IT	6000007215	FLOW METER; VENTURI TUBE	文丘里流量计	FLOWMETER; VENTURI TUBE AND NOZZLE TYPE,34-SAMSS-010
Instrumentation and IT	6000009881	Custody Meter, Multi-Path, Ultrasonic Liquid	多声道超声波流量计	FLOWMETER; CUSTODY TRANSFER LIQUID TYPE,CUSTODY TRANSFER LIQUID
Instrumentation and IT	6000009890	CUSTODY PROVER, SMALL VOLUME, UNI PISTON	液位计校准仪	METER; UND PISTON(SMALL VOLUM) PROVER TYPE,34-SAMSS-119,FOR LIQUID CUSTODY TRANSFER
Instrumentation and IT	6000009906	CUSTODY PRESET CONTROLLER, TRUCK LOADING	卡车装车系统预置控制器	COMPUTER FLOW; CUSTODY PRESET CONTROLLER TYPE,34-SAMSS-847,FOR TRUCK LOADING AND UNLOADING SYSTEMS
Instrumentation and IT	6000014021	Analyzer; Physical Property	物性分析仪	ANALYZER; PHYSICAL PROPERTY TYPE,ANY RANGE,(EXAMPLE: BOILING POINT, FLASH POINT, POUR POINT, CFPP, RVP, COLOR, CLOUD POINT, FREEZE POINT, OCTANE AND VISCOSITY)
Instrumentation and IT	6000014531	MPFM FOR GAS FIELD APPLICATION	气田多相流量计	FLOWMETER; MULTIPHASE FLOWMETER TYPE,34-SAMSS-001,FOR GAS,FLOW RATE MEASUREMENT
Instrumentation and IT	6000014614	CUSTODY TANK GAUGING SYSTEM, RADAR	雷达液位 储罐计量系统	GAUGE TANK LEVEL; RADAR CUSTODY TRANSFER TYPE,ANY RANGE,34-SAMSS-321,SAES-Y-301,RADAR TANK GAUGING SYSTEMS FOR CUSTODY TRANSFER
Instrumentation and IT	6000014893	FIBER OPTIC SENSING PLDS	光纤管道泄露监测系统	DETECTOR LEAK; FIBER OPTIC TYPE, FOR PIPELINE,SAES-2-003,THE FIBER OPTIC CABLE SENSING METHOD ANALYSES THE HEAT/TEMP AND THE CONDUCTIVITY OF THE CABLE TO DETECT THE LEAK OCCURS. FOR PIPELINE LEAK DETECTION SYSTEM (PLDS) APPLICATIONS.
Instrumentation and IT	6000009831	CUSTODY METER, TURBINE, LIQUID	液体涡轮流量计	FLOWMETER TURBINE; CUSTODY TRANSFER LIQUID TYPE,ANY,34-SAMSS-117
Instrumentation and IT	6000009832	CUSTODY METER, POS DISPL , LIQUID	正位移液体流量计	FLOWMETER POSITIVE DISPLACEMENT; CUSTODY TRANSFER LIQUID TYPE,ANY,34-SAMSS-118
Instrumentation and IT	6000009895	CUSTODY DENSITY METER, LIQUID	液体密度计	METER DENSITY; CUSTODY TRANSFER LIQUID TYPE,34-SAMSS-510
Instrumentation and IT	6000009898	CUSTODY CHROMATOGRAPH, GAS OR LIQUID	气液色谱	CHROMATOGRAPH PROCESS; FOR CUSTODY TRANSFER CHROMOTOGRAPHY,ANY DETECTOR,ANY CARRIER,34-SAMSS-510
Instrumentation and IT	6000009899	CUSTODY FLOW COMPUTER, LIQUID, PANEL-MNT	面板安装型 流量计算机	COMPUTER FLOW; PANEL MOUNTED TYPE,34-SAMSS-841,FOR LIQUID CUSTODY TRANSFER
Instrumentation and IT	6000009908	Custody Tank Gauge, Radar	储罐雷达液位计	GAUGE TANK LEVEL; ANY TYPE,ANY RANGE 34-SAMSS-321,CUSTODY TANK RADAR GAUGE, CUSTODY TRANSFER TANK LEVEL GAUGING
Instrumentation and IT	6000009900	CUSTODY FLOW COMPUTER, GAS, PANEL-MNTD	天然气流量计站	COMPUTER FLOW; PANEL MOUNTED TYPE,34-SAMSS-846,FOR GAS CUSTODY TRANSFER
Instrumentation and IT	6000013000	Multiplexer; Foundation Fieldbus (FF)	现场总线多路连接器	MULTIPLEXER; FOUNDATION FIELDBUS (FF) TYPE,SAES-J-904,AA MULTI-INPUT TEMPERATURE
Nonmetallic	6000000030	PIPE; NON-METALLIC; THERMOPLASTIC; CPVC;	CPVC管	PIPE NON-METALLIC; ANY NPS, CHLORINATED POLYVINYL CHLORIDE (CPVC),ISO 15877,ASTM F441.SOLID-WALL, MAXIMUM TEMPERATURE IS 82 C HOT AND COLD WATER INSTALLATIONS AND FOR HEATING SYSTEM INSTALLATIONS SYSTEM. HOT AND COLD WATER INSTALLATIONS WITHIN BUILDINGS, WATER FOR HUMAN CONSUMPTION, WATER FOR HEATING SYSTEMS. SSURIZED
Nonmetallic	6000000031	PIPE; NON-METALLIC; ALL SIZES; THERMOPLA	UPVC管	PIPE NON-METALLIC; ANY NPS,THERMOPLASTIC, UPVC,M D1785,1452 AND ASTM D4216.SOLID-WALL, MAXIMUM TEMPERATURE IS 45 C (UNPLASTICIZED) POLYVINYL CHLORIDE (PVC/UPVC) WATER SUPPLY AND FOR BURIED AND ABOVE-GROUND DRAINAGE AND SEWERAGE UNDER PRESSURE WATER MAINS AND SERVICES, WATER ABOVE GROUND FOR BOTH OUTSIDE AND INSIDE BUILDINGS, BURIED AND ABOVE GROUND DRAINAGE AND SEWERAGE UNDER PRESSURE, HYDROCHLORIC ACID,PHOSPHORIC ACID AND LPG, NGL, IED
Nonmetallic	6000000042	Pipe; Nonmetallic, (RTP) PIPE	柔性增强热塑性塑料复合管 (RTP管)	PIPE NON-METALLIC; MAXIMUM 8 INCHES NPS,REINFORCED THERMOPLASTIC (RTP),INTERNAL / EXTERNAL LINING THERMOPLASTIC,PE, RT, PP PA,PVDF,PREFABRICATED SPOOL ENDS,FOR WATER AND HYDROCARBON APPLICATIONS MAX TEMP 180 F,API RP 155,ONSHORE / OFFSHORE WATER AND HYDROCARBON APPLICATIONS

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Nonmetallic	600000409	Hose; High pressure 500 psig and greater	高压软管; 500PSI及以上 SAE100R	HOSE; SIZE ANY, FOR GENERAL PURPOSES, PR HIGH PRESSURE 500 PSIG AND GREATER, REINFORCED NATURAL OR SYNTHETIC RUBBER, SAE 100R, FOR GENERAL PURPOSES SUCH AS OIL AND WATER-BASED FLUIDS, PNEUMATIC APPLICATIONS, LOW PRESSURE HYDRAULIC, LUBRICATING FLUIDS, WATER, ETC.
Nonmetallic	600000410	Hose: Rubber wire reinforced dock hoses	橡胶增强输油软管 (甲板装卸管系)	HOSE; SIZE 102 MM (4 IN) TO 305 MM (12 IN), FOR ANY RUBBER WIRE REINFORCED DOCK HOSE, 22-SAMSS-003, FOR OIL SUCTION AND DISCHARGE OPERATIONS. NOMINAL HOSE BORE USED FOR TRANSFERRING CRUDE OIL AND LIQUID PETROLEUM PRODUCT (OTHER THAN LIQUEFIED PETROLEUM GAS AND LIQUEFIED NATURAL GAS). TEMPERATURE RANGES FROM 5°C (41°F) TO 80°C (180°F) AND MAXIMUM 40% AROMATIC HYDROCARBON CONTENT. FOR CRUDE OIL, TANKER FUEL AND HYDROCARBON PRODUCTS OTHER THAN LIQUEFIED PETROLEUM AND NATURAL GAS.
Nonmetallic	600000411	Hose: Rubber, reinforced, smooth bore,	橡胶增强输油软管	HOSE; SIZE 150 MM (6 IN) TO 600 MM (24 IN), FOR OIL, MARINE FOR TANKER LOADING, RUBBER, REINFORCED, SMOOTH BORE, 22-SAMSS-004, OIL SUCTION AND DISCHARGE HOSES FOR USE AT OFFSHORE INSTALLATIONS. NOMINAL DIAMETER. THE HOSE TYPES ARE AS FOLLOWS: # FLOATING HOSE: VARIABLY REINFORCED HALF FLOAT (VRHF), FULL FLOAT (FF), AND RAIL/TAI (R/T) # SUBMARINE HOSE: STANDARD SUBMARINE (SS), SPECIALLY REINFORCED FOR SALM SERVICE (SRSS), AND VARIABLY REINFORCED FOR SPM SERVICE (VRSS). TEMPERATURE RANGES FROM 5°C (41°F) TO 63°C (145°F) AND MAXIMUM 25% AROMATIC HYDROCARBON CONTENT. OFFSHORE OIL SUCTION AND DISCHARGE CRUDE OIL AND LIQUID PETROLEUM PRODUCT (OTHER THAN LIQUEFIED PETROLEUM GAS AND LIQUEFIED NATURAL GAS)
Nonmetallic	6000010400	HOSE: OFFSHORE, OIL SUCT/DISC HOSES	海洋输油软管	HOSE; SIZE ANY, FOR ANY, 22-SAMSS-004, RUBBER, REINFORCED, SMOOTH BORE, OIL SUCTION AND DISCHARGE HOSES FOR USE AT OFFSHORE INSTALLATIONS. SIZE RANGES FROM 150 MM (6 IN) TO 600 MM (24 IN) NOMINAL DIAMETER. 22-SAMSS-004, THE HOSE TYPES ARE AS FOLLOWS: # FLOATING HOSE: VARIABLY REINFORCED HALF FLOAT (VRHF), FULL FLOAT (FF), AND RAIL/TAI (R/T) SUBMARINE HOSE: STANDARD SUBMARINE (SS), SPECIALLY REINFORCED FOR SALM SERVICE (SRSS), AND VARIABLY REINFORCED FOR SPM SERVICE (VRSS) TEMPERATURE RANGES FROM 5°C (41°F) TO 63°C (145°F) AND MAXIMUM 60% AROMATIC HYDROCARBON CONTENT. 22-SAMSS-004. OFFSHORE OIL SUCTION AND DISCHARGE CRUDE OIL AND LIQUID PETROLEUM PRODUCT (OTHER THAN LIQUEFIED PETROLEUM GAS AND LIQUEFIED NATURAL GAS)
Nonmetallic	6000017130	FIRE-RETARDANT RTR	阻燃RTR管	PIPE NON-METALLIC; ANY NPS, ANY, 01-SAMSS-034, SAES-B-017, ISO 14692, PIPE & FITTING, FIRE-RETARDANT NONMETALLIC RTR FOR ABOVEGROUND FIREWATER SYS. EPOXY BASED REINFORCED THERMOSETTING RESIN PRESSURIZED PIPE. FILAMENT WOUND MANUFACTURING PROCESS WITH ADDITIONAL FIRE RETARDANT LAYER FOR ABOVEGROUND FIREWATER PIPING SYSTEMS (RAW/FIRE COMBINED WATER SYSTEM AND DEDICATED FIREWATER SYSTEM) IN ACCORDANCE WITH FM 1614. FIRE PERFORMANCE CLASSIFICATION AS PER ISO 14692-2 SECTION 6.5.2.
Nonmetallic	6000018060	VESSEL, PRESSURE, ANY, FIBREGLASS-REINFO	玻璃钢制压力容器	VESSEL; PRESSURE TYPE, ANY, FIBREGLASS-REINFORCED PLASTIC (FRP) 32-SAMSS-039, WATER SERVICES ONLY
Others	6000001829	COIL; REFRIGERATION; HVAC USE	制冷盘管 AHRI 410 标准	COIL; COIL, REFRIGERATION, HOT/CHILLED WATER APPLICATIONS TYPE AHRI 410 CERTIFIED
Others	6000001882	AIR CONDITIONING UNIT; DIRECT EXPANSION;	工艺用/船用直膨式空调机组, 制冷量 5.5 公吨, 符合 UL-1995, AHRI-210/240 标准	AIR CONDITIONING UNIT; DIRECT EXPANSION TYPE, 27-SAMSS-002, UL-1995 AHRI-210/240 (< 5.0 TON), AH, HVAC/REFRIGERATION SYSTEMS FOR PROCESS AND OFFSHORE APPLICATIONS
Others	6000014875	DAMPER; BACK DRAFT	反向通风风门 AMCA 511 级	DAMPER; BACK DRAFT TYPE, SIZE ANY, AMCA 511
Others	6000014878	AIR HANDLING UNIT; CUSTOM BUILT	定制空气处理机组	AIR HANDLING UNIT; AIR HANDLING UNIT CUSTOM BUILT TYPE, ANY, AMCA 99, NFPA 70, NFPA 90A, AHRI 430, AHRI 410 SEAL FOR COILS, AMCA 210 AND 301 SEA FOR FANS
Others	6000002419	Water Filter Media	砂滤用滤料	FILTER; SAND BED TYPE, FOR WATER SERVICE, FILTER MEDIA, WATER, 32-SAMSS-034, WATER FILTER MEDIA INCLUDING: SAND, ANTHRACITE, MANGANESE GREEN SAND, BERM, GARNET, GRAVEL (AS SUPPORTING LAYER). MERGE WITH 6000001776, 6000001777, 6000002510
Others	6000008555	Thermal & Electro-dialysis Desal Sys	频繁倒极电渗析脱盐设备 EDR	DESALINATION; THERMAL & ELECTRO-DIALYSIS DESALINATION SYSTEMS TYPE REVERSAL (EDR) EQUIPMENT
Others	6000012705	Oil Skimmer	水上收油机 (鼓式, 碟片式)	UNIT; OIL SKIMMER TYPE OIL/WATER-OIL SKIMMERS: A DRUM, DISK SURFACE OIL SKIMMER, OR DOUBLE ARM INTERNAL FLOAT OIL SKIMMER THAT REMOVES SURFACE OILS FLOATING ON OILY WATER RELY ON ADHESION OF OIL TO THE SURFACE OF THE MECHANISM.
Others	6000010110	Water Media Filters	水滤芯	FILTER; WATER MEDIA FILTERS TYPE
Others	6000012655	WASTEWATER ODOR CONTROL	废水臭气控制	CONTROL; WASTEWATER ODOR TYPE,
Others	6000016133	REACTOR; MOVING BED BIOLOGICAL	移动床生物反应器	REACTOR; MOVING BED BIOLOGICAL REACTOR TYPE, SAES-A-104, IS A SINGLE OR MULTIPLE-STAGE ACTIVATED SLUDGE BIOLOGICAL TREATMENT PROCESS SYSTEM FOR CARBON AND/OR NITROGEN REMOVAL USING MOVING PLASTIC CARRIERS WITH FIXED BIOFILM
Others	6000017280	UNIT; ELECTRO-DEIONIZATION	电除盐装置 EDI	UNIT; ELECTRO-DEIONIZATION TYPE, NA, WATER ELECTRO-DEIONIZATION (EDI) UNIT ASSEMBLED AND READY TO CONNECT AND START. CONSISTS OF: (1) ELECTRO-DEIONIZATION UNIT TO PRODUCE DEIONIZED WATER FROM RO 2ND PASS. (2) CO2 REMOVAL SYSTEM THROUGH MEMBRANE CONTACTORS. (3) CONTROL AND INSTRUMENTATION.
Others	6000010115	Wastewater Package Treatment Plant	废水处理整体装置	UNIT; WASTEWATER PACKAGE TREATMENT PLANT TYPE
Others	6000001314	MONITOR; FIREFIGHTING, HYDRANT-MOUNTED TYPE, UL/FM	手动消防栓顶装式消防炮	MONITOR; FIREFIGHTING, HYDRANT-MOUNTED MANUALLY OPERATED TYPE, ANY RANGE, MEETING 21-SAMSS-16, INDUSTRIAL MONITOR SYSTEM, WILL BE INSTALLED ON #COM 6000001310
Others	6000002696	PANEL CONTROL; FIRE PUMP TYPE, UL/FM LISTED/ APPROVED, COMPLY	消防泵控制柜, UL 认证	PANEL CONTROL; FIRE PUMP TYPE, UL 218 LISTED, FOR DIESEL/ELECTRICAL FIRE PUMP CONTROLLERS PANELS SHALL BE LISTED FOR +50 DEG CELSIUS, ENCLOSURE MUST BE NEMA 250/NEMA TYPE 4 FOR ONSHORE AND NEMA TYPE 4X FOR OFFSHORE AND NEAR SHORE ENVIRONMENT OUTDOOR WITH SHELTER INSTALLATION, INDOOR WITH AIR-CONDITIONED INSTALLATIONS ARE ALLOWED TO BE ONLY UL 218 LISTED WITHOUT 50 DEG/NEMA 4/4X ENCLOSURE, ALL PANELS MUST BE CAPABLE OF PROVIDING THE PUMPS SEQUENCING FUNCTIONS IN SAES-B-017 / SAES-P-116
Others	6000011727	DETECTOR FIRE PROTECTION; VERY EARLY WARNING ASPIRED SMOKE	吸气式极早期烟雾探测报警, UL/FM 认证产品	DETECTOR FIRE PROTECTION; VERY EARLY WARNING ASPIRED SMOKE DETECTION SYSTEM TYPE, UL/FM LISTED/ APPROVED, COMPLY W/COM, CONSISTING OF HIGH SENSITIVITY AIR ASPIRATED SMOKE DETECTION EQUIPMENT. MUST BE UL/FM LISTED/ APPROVED AND COMPLY WITH NFPA, CONTACT FRPD RSA FOR DETAILS.
Others	6000017250	SUPPRESSOR; FIRE PROTECTION, WET CHEMICAL SYSTEM FOR COMMERCIAL	厨房用阻火器, UL300 认证	SUPPRESSOR; FIRE PROTECTION, WET CHEMICAL SYSTEM FOR COMMERCIAL COOKING EQUIPMENT TYPE, UL 300 LISTED, FIRE EXTINGUISHING SYSTEMS FOR ALL COMPONENTS INCLUDING AGENT CYLINDERS, INSTRUMENTATION, FUSIBLE LINKS, INITIATING DEVICES, WET CHEMICAL, EXPELLANT GAS, PNEUMATIC RELEASE, ACTIVATION MECHANISM, CONTROL EQUIPMENT FOR POWER/GAS, COVERS, CONTROL PANELS.
Others	6000014422	MONITOR; FIREFIGHTING, REMOTE CONTROL TYPE, ELECTRICALLY OPERATED	遥控消防炮	MONITOR; FIREFIGHTING, REMOTE CONTROL TYPE, ANY RANGE, ELECT OR HYDRAULIC OPERATED SUPPLY, MEETING 21-SAMSS-16, FULL SYSTEM FULL CONTROL INDUSTRIAL APPLICATIONS MEETING PROJECT SPECS.
Others	6000018110	FENCE, RIGID WELDED MESH (RWM), 3 METERS	刚性焊接围栏	FENCE; RIGID WELDED MESH (RWM) TYPE, 3 METERS HEIGHT, 3 TO 3.5 METERS WIDTH HT, STAINLESS STEEL, SAES-O-202
Pipe & OCTG	6000007293	CRA Coupling for 4-1/2" to 9-5/8" with premium gas tight connection	4-1/2" to 9-5/8" 耐腐蚀合金接箍, 气密封性特殊螺纹	COUPLING OCTG; DUPLEX STAINLESS STEEL AND NICKLE BASE ALLOYS, SEAMLESS, API-5CRA, ISO-13680 AND 45-SAMSS-006, GR API-5CRA GROUP-2 TO GROUP-4 GRADES, SIZE ANY, CAL-IV QUALIFIED THREAD END CONN ANY LG
Pipe & OCTG	6000007303	CRA casing for 4-1/2" to 9-5/8" with premium gas tight connection	4-1/2" to 9-5/8" 耐腐蚀合金套管, 气密封性特殊螺纹	CASING OCTG; DUPLEX STAINLESS STEEL AND NICKLE BASE ALLOYS, SEAMLESS, API-5CRA, ISO-13680 AND 45-SAMSS-006, GR API-5CRA GROUP-2 TO GROUP-4 GRADES, SIZE 4-1/2 IN AND LARGER SIZES, CAL-IV QUALIFIED THREAD END CONN
Pipe & OCTG	6000007305	CRA crossover for 4-1/2" to 9-5/8" with premium gas tight connection	4-1/2" to 9-5/8" 耐腐蚀合金变径接头, 气密封性特殊螺纹	ADAPTER OCTG NIPPLE/CROSSOVER/SWAGE; DUPLEX STAINLESS STEEL AND NICKLE BASE ALLOYS, SEAMLESS, API-5CRA, ISO-13680 AND 45-SAMSS-006, GR API-5CRA GROUP-2 TO GROUP-4 GRADES, CAL-IV QUALIFIED THREAD
Pipe & OCTG	6000007307	CRA pup joints for 4-1/2" to 9-5/8" with premium	4-1/2" to 9-5/8" 耐腐蚀合金短节, 气密封性特殊螺纹	PUP JOINT OCTG; DUPLEX STAINLESS STEEL AND NICKLE BASE ALLOYS, SEAMLESS, API-5CRA, ISO-13680 AND 45-SAMSS-006, GR API-5CRA GROUP-2 TO GROUP-4 GRADES, SIZE 4-1/2 IN AND LARGER SIZES, CAL-IV QUALIFIED THREAD END CONN
Pipe & OCTG	6000015250	Non-Metallic OCTG Products	非金属油套管	CASING OCTG; THERMOSETTING POLYMERS REINFORCED WITH FIBERGLASS, API 15HR, 45-SAMSS-006 API-5L SIZE 4-1/2 IN -10-3/4 I

2022 Sourcing List

Pipe & OCTG	6000013160	PIPE&FITTINGS;NON-METAL;RTR	玻璃钢 (RTR) 非金属管&管件	PIPE NON-METALLIC; MAXIMUM 14 IN NPS, REINFORCED THERMOSETTING RESIN, REINFORCED THERMOSETTING RESIN (RTR), FOR WATER (NON-UTILITY) AND HYDROCARBON APPLICATIONS MAX TEMP 200 F. 01-SAMSS-042 API 15HR API 15LR
Pipe & OCTG	6000013900	PIPE; NON-METAL; LINED PIPING SYSTEMS	衬氟管道	PIPE NON-METALLIC; SIZES RANGES FROM NPS 1 TO 20 NPS, ASME/ANSI CLASS 150 AND 300 SUPPLY, CARBON STEEL, NEEDED PIPE & FITTINGS SYSTEM VY DUTY PTFE& PFA LINED, 01-SAMSS-025, CORROSIVE FLUIDS INCLUDING ACIDS AND ALKALINE SOLUTIONS SUCH AS HYDROCHLORIC ACID, NITRIC ACID, PHOSPHORIC ACID, CHLORINE/WATER, HYDRAULIC OIL, HYPOCHLORITE (SODIUM OR CALCIUM), SODIUM HYDROXIDE (CAUSTIC SODA), WATER, SEA/SALINE, WATER, AERATED AQUIFER, DESALINATION BRINE, PRODUCED WATER, DISPOSAL SALT, WATER BRINE.
Pipe & OCTG	6000014681	SERVICE: WET -TYPE COMPOSITE REPAIR EXT.	外腐蚀管道复合修复服务; 湿式	SERVICE; WET-TYPE THERMOSET COMPOSITE FIBER REINFORCED COMPOSITE TYPE SAEP-345, ASME-PC2 ISO 24817, USE FOR WATER, HYDROCARBON, CHEMICALS PLANT PIPING AND PIPELINES. SUITABLE FOR EXTERNAL CORROSION UP TO 80 PERCENT METAL LOSS. FOR PLANT PIPING AND FITTINGS, IT SHALL BE UTILIZED AS A TEMPORARY REPAIR WITH A PRIOR APPROVAL FROM NONMETALLIC SCC.
Pipe & OCTG	6000000012	PIPE; STEEL API 5L; SAW STRAIGHT; SOUR	直缝埋弧焊钢管, APISL标准, 酸性服役	PIPE METALLIC; ALL SIZE NPS, ANY, STEEL, GR GRADE B THRU X65, SAW STRAIGHT SEAM, BARE, BEVELED ENDS, API 5L, 01-SAMSS-035, SOUR SERVICE
Pipe & OCTG	6000010871	PIPE METALLIC; SAW STRAIGHT; NON SOUR	直缝埋弧焊钢管, 非酸性服役	PIPE METALLIC; ALL SIZE NPS, ANY, CS, GR GRADE B THRU X70, STRAIGHT SAW API 5L, 01-SAMSS-035, NON SOUR SERVICE
Pipe & OCTG	6000000160	CEMENT LINING; TYPE INTERNAL; FITTING	管件水泥内衬	LINING; ANY TYPE, CEMENT, 01-SAMSS-005, INTERNAL LINING FOR STEEL PIPE FITTING
Pipe & OCTG	6000000003	CEMENT LINING; TYPE INTERNAL;	钢管水泥内衬	LINING; ANY TYPE, CEMENT, 01-SAMSS-005, INTERNAL LINING FOR STEEL PIPE, ONSHORE UTILITIES
Rotating Equipment	6000002244	COMPRESSOR; AIR; CENTRIFUGAL; INTEGRALLY	整装式离心压缩机	COMPRESSOR AIR; CENTRIFUGAL, INTEGRALLY GEARED TYPE, 31-SAMSS-006
Rotating Equipment	6000002417	FILTER; ELEMENT; COMBUSTION GAS TURBINE;	燃气轮机用进气末级滤芯	FILTER ELEMENT; FOR COMBUSTION GAS TURBINE, 32-SAMSS-008, AIR INLET, FINAL STAGE
Rotating Equipment	6000002367	PUMP; CENTRIFUGAL; CANNED MOTOR;	单级离心屏蔽泵	PUMP CENTRIFUGAL; CANNED MOTOR TYPE, SIZE ANY, ANY, SINGLE STAGE(S), ASME B73.3M / ISO15783
Rotating Equipment	600002452	Mixer; Process; Propeller; Geared; Belt	工艺混合器	MIXER; PROCESS TYPE, MFR STANDARDS, PROPELLER, GEARED, BELT OR DIRECT DRIVE
Rotating Equipment	6000017940	PUMP SUBMERSIBLE, CRYOGENIC PER API 610	耐低温潜液泵	PUMP SUBMERSIBLE; ANY, CRYOGENIC PER API 610, COMPLETE UNIT, PUMP ALONE OR MOTOR ALONE, INCLUDING ACCESSORIES
Rotating Equipment	6000012484	MICROTURBINES: GAS TURBINE GENERATORS, U	微型燃气轮机	TURBINE COMBUSTION GAS; GAS TURBINE GENERATORS TYPE, UP TO 500 KW, 32-SAMSS-100, S-K-502, MICROTURBINES
Rotating Equipment	6000017500	UNIT, METALLIC 3DPRINTING/ADDITIVE MANUF	3D打印机组	UNIT; SAEP-411, ANY METALLIC AND NONMETALLIC CRITICAL APPLICATIONS AS D
Static Equipment	6000001821	AIR HANDLING UNIT; AHU; CHILLED WATER OR	水冷式或直膨式空气处理机组	AIR HANDLING UNIT; AHU TYPE, CHILLED WATER OR DIRECT EXPANSION, ONSHORE ALL SIZES AND OFFSHORE LESS THAN 10 TONS COOLING MANUFACTURER STANDARD
Static Equipment	6000001822	AIR CONDITIONING UNIT; SELF CONTAINED; O	整体式空气调节机组, AHRI 340及UL1995标准	AIR CONDITIONING UNIT; SELF CONTAINED TYPE, (PACKAGED UNIT) CERTIFIED TO AHRI 340 AND UL 1995 STD
Static Equipment	6000001823	AIR CONDITIONING UNIT; PACKAGED UNIT TRA	撬装/车载空气处理机组, 制冷剂R-22或R-134A	AIR CONDITIONING UNIT; PACKAGED UNIT TRAILERIZED TYPE, AIR COOLED, R-22 OR R-134A, MANUFACTURER STANDARD
Static Equipment	6000001826	A/C Unit, mini-split, DE below 5.5 Tons	分体式空气处理机组, AHRI 210/240, UL-1995标准	AIR CONDITIONING UNIT; AIR CONDITIONING UNIT SPLIT TYPE, LESS THAN 5.5 TON COOLING TONNAGE, DIRECT EXPANSION TYPE, AHRI 210/240, UL-1995
Static Equipment	6000001862	A/C UNIT; SPLIT; DIRECT EXP, 5.5 TO 63 TONS	分体直膨式空气处理机组, AHRI 340/360, UL1995标准	AIR CONDITIONING UNIT; AIR CONDITIONING UNIT SPLIT UNIT DIRECT EXPANSION TYPE, SIZES 5.5 TO 63 COOLING TONNAGE COOLING, AHRI 340/360, UL1995, EER VALUE SHALL BE IN ACCORDANCE WITH THE EER TABLE IN SAES-K-001
Static Equipment	6000002404	TOWER; COOLING; WATER;	水冷冷却塔, 符合ASHRAE 90.1	TOWER COOLING; WATER TYPE, 27-SAMSS-003, ASHRAE 90.1
Static Equipment	6000000188	FLANGE; COMPACT WN PAIR, M-F CONNECTOR	ASME标准WN密封面管法兰	FLANGE PIPE; COMPACT FLANGE WN PAIR, WN BLIND, WN WN SWIVEL-RING OR AS DESIGNED TYPE, ASME CLASS 900 AND ABOVE SUPPLY, WN WITH SELF-ENERGIZING SEAL TERMINAL, ANY NPS, ANY STEEL PER 02-SAMSS-011, ASME SEC VIII DESIGN, 02-SAMSS-011, COMPLETE ASSEMBLY WITH MALE-FEMALE CONNECTOR, SEAL RING, BOLTS AND NUTS
Static Equipment	6000000275	VALVE; CHECK; SWING; UP TO 12 IN; CI OR DI	铸铁止回阀, AWWA标准	VALVE CHECK; SIZE UP TO 12 INCH, CAST OR DUCTILE IRON BODY, SWING, FLANGED, LUG OR WAFER END
Static Equipment	6000000296	VALVE; GATE; WEDGE OR DBL DISC; UP TO 12	铸铁闸阀, 12英寸以内, AWWA标准	VALVE GATE; SIZE UP TO NPS 12, ANY RATING, ALLENDIS SUPPLY, CAST OR DUCTILE IRON BODY, 04-SAMSS-035, 04-SAMSS-048, AWWA, WITH OR WITHOUT ACTUATOR
Static Equipment	6000000297	VALVE GATE; SIZE NPS 14 AND ABOVE	铸铁闸阀, 14英寸以上, AWWA标准	VALVE GATE; SIZE NPS 14 AND ABOVE, ANY RATING, ALLENDIS SUPPLY, CAST OR DUCTILE IRON BODY, 04-SAMSS-035, AWWA, WITH OR WITHOUT ACTUATOR
Static Equipment	6000000302	VALVE; GLOBE; CAST OR DUCTILE IRON;	铸铁截至阀	VALVE GLOBE; ANY NPS, ANY RATING SUPPLY, ANY ENDS END CONN, CAST OR DUCTILE IRON BODY, 04-SAMSS-035, 04-SAMSS-048, 04-SAMSS-002, WITH OR WITHOUT ACTUATOR, ANY SIZE
Static Equipment	6000000317	VALVE; PLUG; 4-WAY DIVERTER; 2 THRU 24	四通旋塞阀	VALVE PLUG; 4-WAY DIVERTER TYPE, SIZE NPS 2 THRU 24, ASME CLASS 150 THRU 600 SUPPLY, FLANGED OR BUTTWELD END, CONN, STEEL BODY, 04-SAMSS-042, 04-SAMSS-035, 04-SAMSS-048, WITH OR WITHOUT ACTUATOR
Static Equipment	6000000343	VALVE; TUBING; UP TO 1 IN; 10000 PSI AND	API-6A标准, 10000PSI, PSL 3级, 油管阀	VALVE; TUBING TYPE, SIZE 9/16 INCH, 10000 PSI AND UP SUPPLY, AUTOCLAVE F562C OR EQUAL END CONN, STEEL BODY, AA API 6A, ALL VALVE TYPES, KHUFF GAS SERVICE, PSL 3G
Static Equipment	6000000490	LUMBER; PLYWOOD; EXTERIOR OR INTERIOR;	陆上建筑用木材, IBC 2006标准	LUMBER; INTERIOR WOOD, EXTERIOR TYPE, ANY NPS, IBC 2006, ONSHORE UTILITIES ONLY
Static Equipment	6000002323	CRANE; JIB; HOISTING; 1/2 TON TO 10 TON;	动臂起重机	CRANE JIB; HOISTING TYPE, 1/2 TON TO 10 TON LIFT, SHOPS OPERATIO, HOISTING
Static Equipment	6000002393	BOILER; FIRE TUBE; AND COMONENTS	火管锅炉	BOILER; FIRE TUBE AND COMPONENTS TYPE, 32-SAMSS-021
Static Equipment	6000002397	BRICK; REFRACTORY	耐火砖	BRICK REFRACTORY; BRICK REFRACTORY
Static Equipment	6000002415	EJECTOR; AIR; STEAM OR WATER;	蒸汽喷射器	EJECTOR; ANY PROCESS, ANY, AIR, STEAM OR WATER, AIR, STEAM OR WATER.
Static Equipment	6000002481	TANK; FIBER GLASS; 32-SAMSS-002	玻璃钢罐	TANK; ANY TYPE, ANY, FIBER GLASS, 32-SAMSS-002
Static Equipment	6000009264	JOINT, METAL TO METAL SEAL	钢管快接头	COUPLING PIPE; METAL TO METAL (POSITIVE OR NEGATIVE) SEAL MECHANICAL TERMINAL, IN NPS, OY STEEL, MM (IN), PSI SUPPLY, M, GED MLESS LIGHT, E URAL FINISH, ASME, ASME, (IN) (IN), (TIVE OR NEGATIVE (TIVE OR NEGATIVE JOINT; METAL TO METAL SEAL MECHANICAL TYPE, CS/ SS/ALLOY STEEL, (IN) (IN), (TIVE OR NEGATIVE (TIVE OR NEGATIVE
Static Equipment	6000017141	INLINE MIXING SKID;	高效混合阀或管系	UNIT; VALVE/SPOOL TYPE, SAES-A-010, 01-SAMSS-010 ANSI B31.3, INLINE HIGH EFFICIENCY MIXER PACKAGE, ADJUSTABLE OR STATIC, TYPICALLY HAS SPOOL OR VAVLE, FITTINGS, INJECTION CONE, INJECTION PIPE SPOOL, INJECTION QUILL, HOUSING, INTERNAL MIXING PARTS. FOR SOUR AND NON SOUR SERVICE NPS PRODUCT RANGE PER PR, ANSI FLANGE 150 TO 900#. FOR MIXING OIL WITH WATER OR CHEMICALS. FABRICATION WITH APPROVED MANUFACTURER
Static Equipment	6000017370	SEAL, PRIMARY, FOR EXTERNAL FLOATING ROOF	浮顶油罐初级密封	SEAL; PRIMARY TYPE, 32-SAMSS-005, FOR EXTERNAL FLOATING ROOFS
Static Equipment	6000017570	BURNER, BOILER, STEAM GENERATOR	蒸汽发生器用燃烧器	BURNER; BOILER, STEAM GENERATOR TYPE, SIZE ANY, ANY SHAPE, ANY METAL, 32-SAMSS-021
Static Equipment	6000017371	SEAL, SECONDARY, EXTERNAL FLOATING ROOFS	浮顶油罐二级密封	SEAL; SECONDARY TYPE, 32-SAMSS-005, FOR EXTERNAL FLOATING ROOFS
Static Equipment	6000011206	SKID; FILTRATION SYSTEM	碳氢化物过滤系统 (三相过滤器)	SKID; SKID/PACKAGE TYPE, SAES-A-017 (DESIGN), SAMSS-038 (SKID FABRICATION ASSEMBLY AND DESIGN OF FILTRATION SYSTEM (HYDROCARBON SERVICE) OIL / GAS/WATER STREAM
Static Equipment	6000000342	VALVE; KNIFE GATE;	刀闸阀	VALVE; KNIFE GATE, ALL MATERIALS TYPE, SIZE ALL SIZES, 04-SAMSS-035, 04-SAMSS-048, ALL PRESSURES
Static Equipment	6000015607	VALVE; BALL; MS, 2-1/16 IN & UP, 2K-5K PSI,	API-6A标准, 2000-5000PSI球阀	VALVE, BALL; SIZE 2-1/16 IN AND UP, 2000-5000 PSI SUPPLY, FLANGED, HUBBED OR BUTTWELD END CONN, ANY BODY, STYLE SPLIT BODY OR TOP ENTRY, TRUNNION SUPPORTED SUPPORT, METAL SEATED SEAT, 04-SAMSS-055, API 6A
Static Equipment	6000000482	LUMBER; PRESSURE TREATED	压力处理木材	LUMBER; ANY NPS, PRESSURE TREATED, 09-SAMSS-002, ONSHORE UTILITIES ONLY
Static Equipment	6000002260		锤头塔吊	CRANE; FIXED BASE FREE STANDING HAMMERHEAD TOWER CRANE LATTIC TYPE, 18 METRIC TON (MAXIMUM), SIZE VARIES AS PER DSN REQUIREMENT, E B30.3, D1.1 D14.3, A, 70 ASME B30.3, AWS D1.1 AWS D14.3, NFPA 70 OFFSHORE: SAES-W-013, ONSHORE CRANE: 12-SAMSS-007 SAES-H-001 OFFSHORE CRANE: 12-SAMSS-018 SAES-H-004 SAES-W-013
Static Equipment	6000014710	FLANGE; PIPE; CONNECTOR, MECHANICAL END	水下连接器	FLANGE PIPE; CONNECTOR TYPE, ANY NPS, ANY, MECHANICAL END CONNECTORS