

Sourcing List 2020

Sr.no	Material	Description	Long Text Description	Commodity
1	6000004047	Isolation packer expandable	PACKER; ANY TYPE, MECHANICAL, SWELLABLE, ISOLATION PACKERS	Chemicals
2	1000757581	H2S SCAVENGER, POWDER	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 (MSDS).	Chemicals
3	1000022172	ORGANOPHILIC LIGNITE	ORGANOPHILIC LIGNITE ADDITIVE DRILLING FLUID; DRY, GRAY TO BLACK POWDER FORM,LEONARDITE OR OXIDIZED LIGNITE PROCESSED TO BECOME OIL-DISPERSIBLE ORGANO-HUMATES, USED AS THE PRIMARY FILTRATION CONTROL ADDITIVE IN ANY OIL BASED DRILLING FLUID SYSTEM STABLE AT STATIC BOTTOM- HOLE TEMPERATURES UP TO 450 DEGF (232 DEGC). THE PRODUCT CONTAINS NO ASPHALT OR ASPHALT DERIVATIVES AND USED WITHOUT DETERMINATELY IMPACTING EMULSION STABILITY, SUSPENSION AND RHEOLOGICAL PROPERTIES,FOR PRIMARY FILTRATION CONTROL ADDITIVE IN ANY OIL BASED DRILLING FLUID SYSTEMS,LEONARDITE OR OXIDIZED LIGNITE PROCESSED TO BECOME OIL-DISPERSIBLE ORGANO-HUMATES,50 LBS (22.7 KG) MULTI- WALLED BAG, VALVE/SPOUT TYPE COMPLETELY SEALED: 1ST PLY 75 LB. MIN. NATURAL KRAFT PAPER (INTERIOR PLY) 2ND PLY 75 LB MIN. NATURAL KRAFT PAPER. 3RD PLY 80 LB. MIN. NATURAL KRAFT PAPER (EXTERIOR PLY) SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,CHEMICAL AND PHYSICAL SPECIFICATIONS DRY, GRAY TO BLACK POWDER. MOISTURE: 8%WT. MAXIMUM PASSING THROUGH 70 US MESH: 100%WT. INSOLUBLE IN WATER, DISPERSIBLE IN ORGANIC SOLVENTS IMPURITIES (SAND, LIME, GYPSUM, CLAY, ETC.): 15%WT. MAXIMUM SPECIFIC GRAVITY@ 68°F (20°C): 1.20 TO 1.80 NON-TOXIC, ENVIRONMENTALLY FRIENDLY MAINTAINS LOW FILTRATION RATES AND STABLE EMULSION. 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. 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).	Chemicals
4	1000022174	ORGANOPHILIC CLAY - 400F	ORGANOPHILIC CLAY ADDITIVE DRILLING FLUID; WHITE, DRY, FREE FLOWING POWDER, FREE OF LUMPS FORM,ORGANOPHILIC CLAY,FOR IMPARTS VISCOSITY AND SUSPENSION PROPERTIES TO ANY OBM,MODIFIED BENTONITE CLAY WITH QUATERNARY AMINES,50 LBS. (22.7 KG). MULTI-WALLED BAG,VALVE /SPOUT TYPE COMPLETELY SEALED: 1STPLY 75 LB. MIN. NATURAL KRAFT PAPER (INTERIOR PLY) 2ND PLY 75 LB. MIN. NATURAL KRAFT PAPER. 3RDPLY 80 LB. MIN. NATURAL KRAFT PAPER (EXTERIOR PLY) WET SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,ORGANOPHILIC CLAY: OIL-BASED MUD COMPONENTS.IT IS MODIFIED BENTONITE (MONTMORILLONITE) CLAY WITH QUATERNARY AMINES USED TO IMPART VISCOSITY AND SUSPENSION PROPERTIES TO ANY OIL-BASED DRILLING AND COMPLETION FLUIDS. CHEMICAL AND PHYSICAL SPECIFICATIONS: DRY, OFF-WHITE TO TAN OR GRAY POWDER. MOISTURE: 5% WT. MAXIMUM PASSING THROUGH 70 US MESH (210 MICRONS): 100%WT. INSOLUBLE IN WATER, DISPERSIBLE IN ORGANIC SOLVENTS DECOMPOSITION TEMP: >200°F (93°C), NON-FLAMMABLE SPECIFIC GRAVITY @ 68°F (20°C): 1.57 TO 1.70 NON-TOXIC, ENVIRONMENTALLY FRIENDLY MAINTAIN LONG TERM SUSPENSION. 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).	Chemicals

5	1000827162	LIGNITE	<p>LIGNITE-FILTRATION CONTROL AGENT ADDITIVE DRILLING FLUID; POWDER FORM,LIGNITE,FOR USED FOR FILTRATION AND RHEOLOGY CONTROL OF WATER-BASED MUD,BLACK POWDER NATURALLY OCCURRING LIGNITE,50 LBS. (22.7 KG) BAG. SHIPMENT OF PRODUCTS MUST CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,LIGNITE FILTRATION CONTROL AGENT: BLACK POWDER NATURALLY OCCURRING LIGNITE USED FOR FILTRATION AND RHEOLOGY CONTROL OF WATER-BASED DRILLING FLUIDS. IT FUNCTIONS WELL IN HIGH PH ENVIRONMENTS AND IS TOLERANT OF COMMON MUD CONTAMINANTS SUCH AS CALCIUM UP TO 1000 PPM. IT IS SUITABLE FOR USE IN LIME AND GYPSUM MUD SYSTEMS AT TEMPERATURES EXCEEDING 400°F (204°C). OTHER ASSOCIATED ELEMENTS MUST NOT BE HARMFUL TO PERSONNEL AND/OR ADVERSELY AFFECT FLUID PROPERTIES. CHEMICAL AND PHYSICAL SPECIFICATIONS: APPEARANCE: BLACK POWDER SOLUBILITY: REQUIRES AN ALKALINE WATER TO SOLUBILIZE. PH 9.0 OR ABOVE SPECIFIC GRAVITY @ 68°F (20°C): 1.6 - 1.8 BULK DENSITY @ 20°C: 40 - 52 LBS/FT3 CRYSTALLINE SILICA, QUARTZ (SIO2): 5%WT. 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 (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).</p>	Chemicals
6	1000022134	OIL SOLUBLE CORROSION INHIBITOR	<p>DRILLING FLUID CORROSION INHIBITOR ADDITIVE DRILLING FLUID; LIQUID FORM,CORROSION INHIBITOR,FOR USED TO ALLEVIATE DRILLING FLUIDS CORROSION,LIQUID AMINE,55 GAL (208 LITER) DRUM SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,DRILLING FLUID CORROSION INHIBITOR: CATIONIC FILMING POLYAMINE OF A MODIFIED FATTY ACID SOLUBLE IN OIL AND DISPERSIBLE IN WATER USED TO ALLEVIATE DRILLING FLUIDS CORROSION. THE ADDITIVE COATS THE METAL SURFACE WITH A PASSIVATION LAYER TO HELP PROTECT IT FROM HYDROGEN SULFIDE, CARBON DIOXIDE, AND OXYGEN CORROSION. CHEMICAL AND PHYSICAL SPECIFICATIONS: DARK BROWN LIQUID OIL SOLUBLE AND WATER DISPERSIBLE SPECIFIC GRAVITY @ 68°F (20°C): 0.90 - 0.92 FLASH POINT (PMCC): >140°F (60°C) PH (1% SOLUTION IN DI WATER) AT 68°F (20°C): 6 - 8. 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).</p>	Chemicals
7	1000022135	AMINE CORROSION INHIBITOR	<p>HIGH TEMPERATURE CORROSION INHIBITOR ADDITIVE DRILLING FLUID; LIQUID FORM,CORROSION INHIBITOR FOR HIGH TEMPERATURE,FOR ALLEVIATE FRESH, BRACKISH OR BRINE PACKER FLUIDS CORROSION,LIQUID AMINES AND AMIDE,55 GAL (208 LITER)DRUM SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,HIGH TEMPERATURE CORROSION INHIBITOR: A BLEND OF AMINES AND IMIDAZOLINE AMIDE, SOLUBLE IN OIL AND DISPERSIBLE IN WATER USED TO ALLEVIATE CORROSION IN FRESH, BRACKISH OR BRINE PACKER FLUID AT HIGH WELLBORE TEMPERATURES UP TO 400°F.IMIDAZOLINE ADSORPTION FORMS A CHEMICAL FILM ON IRON AND STEEL SURFACES AND DEVELOPS A PASSIVATION LAYER THAT PROVIDES CORROSION PROTECTION IN SOUR H2S, SWEET CO2 AND OXYGEN CORROSION ENVIRONMENT ENCOUNTERED IN OIL AND GAS WELLS. CHEMICAL AND PHYSICAL SPECIFICATIONS: DARK AMBER LIQUID OIL SOLUBLE AND WATER DISPERSIBLE SPECIFIC GRAVITY @ 59°F (15°C): 0.8 - 0.9 FLASH POINT (PMCC): >136.4°F (58°C) DILUTED SOLUTION WITH DI WATER (3:1) AT 68°F(20°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, AND COUNTRY OF ORIGIN, MANUFACTURER NAME AND CONTACT INFORMATION. HAZCOM ACCORDING TO THE MATERIAL SAFETY DATA SHEET (MSDS).</p>	Chemicals

8	1000022136	WATER SOLUBLE CORROSION INHIBITOR	<p>CORROSION INHIBITOR-MICROBIOSTAT ADDITIVE DRILLING FLUID; LIQUID FORM,CORROSION INHIBITOR AND BIOCIDE,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 BIOCIDE 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 PH (CONCENTRATED SOLUTION) @ 68°F (20°C): 4 - 6 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).</p>	Chemicals
9	1000022170	NON-IONIC POTATO STARCH	<p>POTATO STARCH-NON-IONIC DRILLING GRADE ADDITIVE DRILLING FLUID; DRY, FREE FLOWING COARSE GRANULATED POWDER FORM,POTATO STARCH,FOR USED AS A FILTRATE REDUCING AGENT IN WBM WITH HIGH CONCENTRATIONS OF MONOVALENT AND DIVALENT CATIONS OR COMBINATIONS OF ELECTROLYTES, WITH MINIMAL INCREASE IN VISCOSITY.,POTATO STARCH,25 KG (55.1 LBS) MULTI-WALL PAPER BAG, VALVE/SPOUT TYPE COMPLETELY SEALED, MOISTURE AND WATER PROOF. THE CONSTRUCTION OF THE MULTI-WALLED BAG SHALL BE AS FOLLOWS: 1ST PLY 50 LB. NATURAL KRAFT PAPER (INTERIOR PLY) 2ND PLY 50 LB. NATURAL KRAFT PAPER 3RD PLY SEPARATE INNER BAG LINER, HIGH DENSITY ORIENTED AND CROSS-LAMINATED (TUBULAR SHAPE) POLY-ETHYLENE RESIN INNER LINER WITH A MINIMUM THICKNESS OF 0.1 MM. 4TH PLY 50 LB. NATURAL KRAFT PAPER. 5TH PLY 60 LB. NATURAL KRAFT PAPER. WET STRENGTH (EXTERIOR PLY) SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,A COMPOSITE SAMPLE REPRESENTING EACH DELIVERED BATCH CONFORMS TO API SPEC 13A SECTION16 /ISO 13500 STANDARD EVALUATIONS.,POTATO STARCH-NON-IONIC DRILLING-GRADE: DRY,FREE-FLOWING COARSE GRANULATED POWDER, FREE FROM LUMPS AND RESISTANT TO MICROBIAL ATTACKS. POTATO STARCH RETAINS FLUIDS MUCH BETTER THAN OTHER STARCHES DUE TO THE LARGE SIZE OF ITS MOLECULES. IT IS SUITABLE FOR USE AS A FILTRATE- REDUCING AGENT IN A VARIETY OF WATER BASED DRILLING FLUIDS WITH HIGH CONCENTRATIONS OF MONOVALENT AND DIVALENT CATIONS OR COMBINATIONS OF ELECTROLYTES, AND CAUSES MINIMAL INCREASE IN VISCOSITY. THE PRODUCT IS A NON- FERMENTING STARCH,BIODEGRADABLE, ENVIRONMENTALLY ACCEPTABLE AND HAS THERMAL STABILITY UP TO 250°F (121°C). POTATO STARCH 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. CHEMICAL AND PHYSICAL SPECIFICATIONS: OFF-WHITE, FREE-FLOWING GRANULAR POWDER NON-IONIC POTATO STARCH-MICROSCOPY: OVAL TO SPHERICAL GRANULES / NO FINE ANGULAR PARTICLES</p>	Chemicals
10	1000811529	N-FLOW - LOSURF-259	<p>LOSURF-259 NONEMULSIFIER SURFACTANT-HALLIBURTON ADDITIVE DRILLING FLUID; LIQUID FORM,SURFACTANT,FOR DESIGNED AS NONEMULSIFIER ADDITIVE FOR ACIDIZING LIMESTONE, DOLOMITE AND SANDSTONE, OR FOR FRACTURE CLEANING TREATMENT.,NONIONIC SURFACTANT BLEND,5 GALLON CAN SHIPMENT OF PRODUCTS MUST CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,LOSURF-259 NONEMULSIFIER SURFACTANT-HALLIBURTON: CLEAR LIQUID NONIONIC SURFACTANT BLEND SPECIFICALLY DESIGNED AS A NONEMULSIFIER ADDITIVE IN ACIDIC OR NONACIDIC FLUIDS USED FOR ACIDIZING LIMESTONE, DOLOMITE AND SANDSTONE FORMATION OR FOR FRACTURE CLEANING TREATMENT. THE SURFACTANT BLEND INCLUDES ETHOXYLATED ALCOHOL, ISOPROPANOL AND HEAVY AROMATIC PETROLEUM NAPHTHA WHICH BREAKS THE OIL BASE MUD EMULSION AND WATER-WETS BOTH SAND AND LIMESTONE. IT DOES NOT ADVERSELY AFFECT ACID REACTION TIMES AND IS USED IN PUSH PILL SPACER PRIOR TO SPOTTING N-FLOW 325 FILTER CAKE BREAKER / REMOVER TREATMENT. [N-FLOW 325 TREATMENT SYSTEM CONSISTS OF HALLIBURTON-BAROID PRODUCTS, LOSURF-259, MUSOL A, N-FLOW 325 & BDF-443]. CHEMICAL AND PHYSICAL SPECIFICATIONS: APPEARANCE TURBID, AMBER LIQUID, DOES NOT LAYER OR FORM A PRECIPITATE SOLUBLE IN WATER, ALCOHOL ODOR SPECIFIC GRAVITY @ 68°F (20°C): 0.92 BOILING POINT: 198°F (92°C) POUR POINT: -50°F (-45°C) FLASH POINT: 63°F (17°C) NON DEGRADABLE IN 15% HCL. 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</p>	Chemicals

11	1000021671	ZINC OXIDE	<p>ZINC OXIDE (ZNO) - H2S SCAVENGER ADDITIVE DRILLING FLUID; FINE POWDER FORM,ZINC OXIDE (ZNO),FOR HYDROGEN SULFIDE SCAVENGER FOR DRILL PIPE CORROSION PROTECTION,INORGANIC COMPOUND OF ZINC OXIDE,25 KG (55.1 LBS.) MULTI-WALLED PAPER BAG. SHIPMENTS SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,ZINC OXIDE-H2S SCAVENGER: AN INORGANIC COMPOUND ZNO, A PURE WHITE VERY FINE POWDER THAT IS INSOLUBLE IN WATER AND USED AS A HYDROGEN SULFIDE (H2S) SCAVENGER FOR DRILL PIPE CORROSION PROTECTION IN FRESH WATER OR BRINE DRILLING AND COMPLETION FLUIDS. THE PRODUCT NORMALLY CONSISTS OF AGGLOMERATED ZINC OXIDE PARTICLES WITH AN AVERAGE SIZE OF 0.1 TO A FEW MICROMETERS. CHEMICAL AND PHYSICAL SPECIFICATIONS: VERY FINE PARTICLE-SIZE ZNO IS REQUIRED FOR FAST EFFICIENT H2S SCAVENGING PURITY: 90%WT. MINIMUM SPECIFIC GRAVITY @ 77°F(25°C):5.6 PARTICLE SIZE DISTRIBUTION:D50 LESS THAN 20 MICRONS BULK DENSITY: 164 LB/FT3 (2627 KG/M3) 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).#</p>	Chemicals
12	1000022533	CALCIUM CHLORIDE (77-78%) 2200 lb/BAG	<p>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 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</p>	Chemicals
13	6000016483	MUD SYSTEM	<p>ADMIXTURE DRILLING MUD; ANY,DRILLING FLUIDS SYSTEM OR PRODUCT USED AS WATER BASED MUD(WBM) OR OIL BASED MUD (OBM) OR FOR SPECIAL APPLICATIONTO 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

14	1000021558	CALCIUM HYDROXIDE - LIME	<p>CALCIUM HYDROXIDE (HYDRATED LIME) ADDITIVE DRILLING FLUID; DRY, FREE FLOWING FINE POWDER FORM,CALCIUM HYDROXIDE, CA(OH)2,FOR TO CONTROL PH, BICARBONATE, AND H2S CONTAMINATION. LIME IS ALSO A PRIMARY COMPONENT OF INVERT EMULSION MUDS,CALCIUM HYDROXIDE (HYDRATED LIME),25 KG (55.1 LBS.) MULTI WALLED PAPER BAG WITH INNER POLYETHYLENE SEALED LINER. SHIPMENT OF PRODUCTS MUST CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,CALCIUM HYDROXIDE CA(OH)2. HYDRATED LIME - TECHNICAL GRADE USED TO INCREASE THE PH AND TO PROVIDE CALCIUM IONS IN DRILLING AND COMPLETION FLUIDS TO MAINTAIN A BASIC PH. IT IS AN ESSENTIAL ADDITIVE USED AS A MEANS OF ADJUSTING THE ALKALINITY WHEN BICARBONATE/CARBONATE AND H2S CONTAMINATIONS EXIST. IN ADDITION, LIME IS USED FOR MAINTAINING THE ALKALINITY OF OIL-BASED DRILLING FLUIDS TO ACTIVATE THE FATTY ACID BASED EMULSIFIERS AND OFFERS A DEGREE OF CORROSION PROTECTION. CHEMICAL AND PHYSICAL SPECIFICATIONS WHITE POWDER CALCIUM HYDROXIDE CA(OH)2: 90% WT. MINIMUM MOISTURE: 1%WT. MAXIMUM PH: 12.0 - 12.5 - SATURATED SOLUTION IN DI WATER AT 68°F (20°C) SPECIFIC GRAVITY AT 68°F (20°C): 2.2 - 2.4 INSOLUBLE IMPURITIES IN 15% HYDROCHLORIC ACID): 0.2% WT. MAXIMUM MAGNESIUM AND ALKALI SALTS:2.5% WT. MAXIMUM IRON CONTENT: 0.1% WT. MAXIMUM PASS THROUGH 75 µM SIEVE (DRY SCREEN):100%. 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</p>	Chemicals
15	1000185026	SODIUM SULFITE	<p>OXYGEN SCAVENGER - SODIUM SULFITE ADDITIVE DRILLING FLUID; WHITE POWDER FORM,FOR REMOVING SOLUBLE OXYGEN FROM WATER-BASED DRILLING FLUIDS AND MONOVALENT BRINES,SODIUM SULFITE,60 KG (132 LB) PLASTIC RIMMED FIBER OR METAL DRUM WITH POLYETHYLENE LINER, SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL,OXYGEN SCAVENGER - SODIUM SULFITE: ANHYDROUS SODIUM SULFITE (NA2SO3) COMMERCIAL GRADE. USED FOR REMOVING SOLUBLE OXYGEN FROM WATER-BASED DRILLING FLUIDS AND MONOVALENT BRINES. IT REACTS WITH DISSOLVED OXYGEN TO REDUCE OXYGEN CORROSION TO FORM SULFATE (SO4-2). THIS REACTION REQUIRES A COBALT CATALYST IN THIS CHEMICAL. SOLUBLE OXYGEN REMOVAL USING SMALL AMOUNTS OF THIS PRODUCT REDUCES THE THERMAL DEGRADATION RATE OF THE DRILLING FLUIDS ORGANIC POLYMERS IN HIGH TEMPERATURE WELLS. CHEMICAL AND PHYSICAL SPECIFICATIONS: PURITY: ANHYDROUS SODIUM SULFITE (NA2SO3): 95%WT. MINIMUM WHITE TO OFF-WHITE POWDER CATALYZED WITH COBALT: 0.03%WT. MINIMUM PH (1% SOLUTION IN DI WATER): 6.5 - 7.0. 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)</p>	Chemicals
16	1000757567	Cross-LINK LCM	<p>CROSS-LINK LCM SYSTEM PILL ADDITIVE DRILLING FLUID; POWDER, SOLID POLYMERS FORM,POLYMER,FOR LOST CIRCULATION MATERIAL,BLEND OF POLYMERS AND CROSS-LINKING AGENTS,40 LB. (18.14 KG) SEALED MULTI-WALL PAPER BAG, THE CONSTRUCTION OF THE MULTI-WALLED PAPER BAG SHALL BE AS FOLLOWS: 1ST PLY 75 LB. MIN. NATURAL KRAFT PAPER (INTERIOR PLY) 2NDPLY 75 LB. MIN. NATURAL KRAFT PAPER 3RD PLY 80 LB. MIN. NATURAL KRAFT PAPER (EXTERIOR PLY). SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,CROSS-LINKED LCM PILL: FREE FLOWING POWDER COMPOSED OF POLYMERS AND CROSS-LINKING AGENTS THAT FORMS A STIFF AND RUBBERY RIGID GEL PLUGS TO CONTROL SEVERE MUD LOSSES IN LARGE FRACTURES OR VUGS. THIS PRODUCT CAN ALSO FORM A PLUG INSIDE CASING AND/OR IN OPEN HOLE FOR PREVENTION OF MUD LOSSES DUE TO EXCESSIVE HYDROSTATIC PRESSURE. RESULTING PLUG CAN BE DRILLED, REAMED AND REMOVED FROM THE CIRCULATING SYSTEM BY SHALE SHAKERS. IT IS COMPATIBLE WITH WBM AND OBM, AND EFFECTIVE INTO A BROAD RANGE OF TEMPERARATURE BETWEEN 60 °F AND 400 °F. TREATMENT IS BASED ON BOTTOM HOLE TEMPERATURE, OPEN HOLE SIZE AND LITHOLOGY. SETTING TIME IS CONTROLLED#BY THE BOTTOM HOLE TEMPERATURE AND THEREFORE, THE WELL TEMPERATURE PROFILE MUST BE WELL KNOWN. HIGH TEMPERATURE APPLICATIONS WILL REQUIRE A SUPPLEMENTAL RETARDER OR DELAYING AGENT(SAP#1000757568). CHEMICAL AND PHYSICAL SPECIFICATIONS: APPEARANCE: BROWN TO TAN ODORLESS POWDER SPECIFIC GRAVITY @ 68 °F (20 °C): 1.2#TREATMENT: A 40 LB. BAG OF CROSS-LINK LCM PILL MAKES ONE BARREL OF PILL/PLUG. 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</p>	Chemicals

17	1000757568	Cross-LINK LCM Retarder	CROSS-LINKED LCM PILL RETARDER ADDITIVE DRILLING FLUID; CLEAR LIQUID FORM,ADDITIVE RETARDER, FOR RETARDER OR DELAYING AGENT FOR CROSS-LINK LCM PILL, FOR CURING MUD LOSSES INTO FORMATION.,RETARDER,5 GALLONS CAN SHIPMENT OF PRODUCT SHALL CONFORM TO SAUDI ARAMCO EXPORT PACKING MANUAL.,CROSS-LINKED LCM PILL RETARDER: CLEAR LIQUID RETARDER, FOR CROSS-LINKED LCM PILL, USED IN CROSS-LINKED LCM PILL SAP#1000757567 PLUG. CHEMICAL AND PHYSICAL SPECIFICATIONS: APPEARANCE: ODORLESS CLEAR LIQUID, SOLUBILITY: SOLUBLE IN WATER, SPECIFIC GRAVITY @ 68°F (20°C): 1.30 - 1.33, BOILING POINT: 221°F (105°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 (MSDS)	Chemicals
18	6000010721	Expandable Pipe System	UNIT; ANY TYPE,EXPANDABLE CASING & ACCESSORIES	Drilling Equipment
19	6000015784	Multilateral system	LATERAL; ANY NPS,ANY,LATERALS AND ACCESSORIES EQUIPMENT	Drilling Equipment
20	6000004089	Open Hole Expandable latch anchor whipstock	WHIPSTOCK; RETRIEVABLE TYPE, ANY CSNG DRE,DRILLING OPERATIONS	Drilling Equipment
21	6000004043	Single ICD Installation	CEMENTER; ANY TOOL OD,ANY DRILL OD,MULTI STAGE INFLATABLE AND MECHANICAL PACKER FOR CEMENTING (DV)	Drilling Equipment
22	6000010715	Tracer Subs system (3-1/2" & 4-1/2")	PACKER; ANY TYPE,EQUALIZER, SAND SCREENS, ACCESSORIES, VARIOUS	Drilling Equipment
23	6000003815	API coupling OCTG	OUPLING OCTG; STEEL,FORGED SEAMLESS,45-SAMSS-006,API-5CT PI-5B,GR J-55, K-55, L- 80, L80-13CR, S-95, P-110,SIZE 2-3/8 IN 18-5/8 IN,4.7 LB/FT - 115 LB/FT WT,ANY END CONN,ANY LG	Drilling Equipment
24	6000003721	Mudline Suspension system with suspension caps	SUSPENSION SUB-SEA MUDLINE; HANGERS, RUNNING AND RETRIEVING, AND TIEBACK TOOLS TYPE,45-SAMSS-005,API 6A AND 17D, FOR OIL AND EXPLORATION WELLS API MONOGRAMMED OR NON-MONOGRAMMED NACE MR0175 LOW ALLOY STEEL OR INCONEL MATERIAL	Drilling Equipment
25	6000003789	VALVE: BACKPRESSURE; & TWCV; WLHD	VALVE BACKPRESSURE WELLHEAD; FOR HS2, CO2, AMINE,UNS-N07718 BODY,HH TRIM,ALL SIZES HANGER,ANY NPS,API 6A,45-SAMSS-005 AND NACE MR0175, FOR BOTH PBV AND TWCV PRESSURE RATING 3M-15M PR-2 (QUALIFIED TO APPENDIX F TO 300F) TR-U (275F) MONOGRAMMED TO API 6A LATEST EDITION	Drilling Equipment
26	6000000774	TRAY; CABLE, FIBERGLASS	TRAY; CABLE TYPE,FIBERGLASS,NEMA FG-1,S-P-104 SEC. 9	Electrical
27	6000000894	SWITCHGEAR: SF-6, 1 TO 36 KV	SWITCHGEAR; MANUALLY OPERATED TYPE,1 TO 36 KV,ANY BIL ,PAD MTG,16-SAMSS- 510,ANSI/IEEE OR IEC,SF-6,	Electrical
28	6000000999	FORM-WOUND BRUSHLESS SYNCH. MOTOR	MOTOR SYNCHRONOUS; 500 HP MINIMUM POWER,4000 V MINIMUM,3 PHASE PHASE,HORIZONTAL MTG,17-SAMSS-520	Electrical
29	6000015902	UNIT; MOBILE SUBSTATION	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.#SCOPE 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
30	6000016594	CAPACITOR BANK	UNIT; SHUNT CAPACITOR TYPE,43-TMSS-01,SAES-P-116,POWER FACTOR CORRECTION CAPACITOR BANK 4.16KV THROUGH 380KV	Electrical
31	6000000919	SWITCHGEAR; LV CONTROLGEAR, FIREWATER PU	SWITCHGEAR; CONTROLGEAR,FIREWATER PUMP TYPE, ANY BIL,UL-218,LOW VOLTAGE,OUTDOOR	Electrical
32	6000000920	SWITCHGEAR; HV CONTROLGEAR, FIREWATER PU	SWITCHGEAR; CONTROLGEAR,FIREWATER PUMP TYPE,ANY BIL,UL-218, HIGH VOLTAGE,OUTDOOR	Electrical
33	6000000903	SWITCH; DISCONNECT; HIGH VOLTAGE;	SWITCH DISCONNECT; HIGH VOLTAGE, ANY ACTION,ELECTRICAL TYPE,30-TMSS-01	Electrical
34	6000015923	BUS; ISOLATED PHASE BUS DUCT	BUS; SIZE ANY,ANY,16-SAMSS-523,ISOLATED PHASE BUS DUCT	Electrical
35	6000016802	ANODE; MMO GRID, WITHOUT LEAD; CP	ANODE IMPRESSED CURRENT; GRID SYSTEM, WITHOUT LEAD TERMINAL,MIXED METAL OXIDE COATED TITANIUM BASE, TITANIUM CONDUCTOR BAR & ANODE WIRE CONNECTION, FOR CATHODIC PROTECTION,17-SAMSS-007	Electrical
36	6000001011	POWER SUPPLY;ELECTRICAL;SOLAR,CP	POWER SUPPLY ELECTRICAL; HODIC PROTECTION POWER PLY ELECTRICAL SOLAR POWER TYPE,ANY POWER,ANY,17-SAMSS-012	Electrical
37	6000015510	ANODE;GALVANIC,HIGH TEMPERATURE ZINC,CP	ANODE GALVANIC; HIGH TEMPERATURE ZINC,17-SAMSS-006,CATHODIC PROTECTION	Electrical
38	6000001040	ANODE GALVANIC;MAGNESIUM,WITHOUT LEAD,CP	ANODE GALVANIC; MAGNESIUM,17-SAMSS-006,CATHODIC PROTECTION WITHOUT LEADS	Electrical
39	6000000957	CABLE;ELECTRICAL, CP, OFFSHORE ANODE	CABLE ELECTRICAL; ANY SUPPLY,ANY CONDUCTO, ORED HODIC PROTECTION OFFSHORE TYPE,POWER TYPE,17-SAMSS-017,ARMORED	Electrical
40	6000001582	CONTROLLER; ELECTRONIC;COMPRESSOR	CONTROLLER; COMPRESSOR INCLUDING SURGE CONTROL TYPE, ANY RANGE,SPECIALIZED CONTROL SYSTEMS	Instrumentation and IT
41	6000002659	ANALYZER; COLOR;	ANALYZER; COLOR TYPE,ANY RANGE,	Instrumentation and IT
42	6000002689	CALIBRATION GAS CYLINDER FOR GAS MONITOR	CYLINDER; CALIBRATION GAS TYPE,SIZE ANY,ANY, FOR COMBUSTIBLE & TOXIC GAS MONITORS ONLY	Instrumentation and IT
43	6000002725	ESD; ELECTRONIC; SOLID STATE	RELAY PROTECTION SOLID STATE; ANY COIL,ANY CONTACT, ANY TYPE,EMERGENCY SHUTDOWN SYSTEM ACTION,34-SAMSS-621,SOLID STATE ELECTRONICS BASED USED TO SAFELY SHUTDOWN A PROCESS IN CASE OF PROCESS DEVIATING TO HAZARDOUS OPERATING CONDITIONS.#	Instrumentation and IT
44	6000002732	MONITOR; FLAME MONITORING SYSTEM	MONITOR; IGNITERS AND BURNERS USED E MONITORING SYSTEM D IN FIRED EQUIPMENT. TYPE,ANY RANGE,34-SAMSS-617	Instrumentation and IT
45	6000002746	ANALYZER; GRAVITOMETER;	ANALYZER; GRAVITOMETER TYPE,ANY RANGE,	Instrumentation and IT
46	6000002777	FLOWMETER; MULTIPATH ULTRASONIC; GAS SER	FLOWMETER; MULTIPATH ULTRASONIC TYPE,34-SAMSS-010,GAS SERVICE	Instrumentation and IT
47	6000002786	MONITOR; GAS; HYDROGEN SULFIDE;	MONITOR GAS; HYDROGEN SULFIDE,ANY RANGE,34-SAMSS-514	Instrumentation and IT

48	600002822	GAUGE; RADAR; TANK GAUGING;	GAUGE; RADAR TYPE,ANY RANGE,34-SAMSS-319,TANK GAUGING EQUIPMENT FOR INVENTORY TANK USE ONLY.	Instrumentation and IT
49	600002898	BUILDING; ANALYZER; INCLUDES INTEGRATION	BUILDING; ANALYZER TYPE,SIZE ANY,SAES-J-510,INCLUDES ANALYZER INTEGRATION.	Instrumentation and IT
50	600002914	ANALYZER; GAS CHROMATOGRAPH; Sheltered	ANALYZER; GAS CHROMATOGRAPH TYPE,ANY RANGE,34-SAMSS-510,PROCESS GAS OR LIQUID	Instrumentation and IT
51	600007390	GUIDED WAVE RADAR LEVEL TRANSMITTERS	TRANSMITTER LIQUID LEVEL; GUIDED WAVE RADAR (GWR) TYPE,GUIDED WAVE RADAR (GWR) LEVEL TRANSMITTERS	Instrumentation and IT
52	6000010781	FOUNDATION FIELDBUS (FF) BLOCKS	BLOCK; FOUNDATION FIELDBUS(FF) WIRING TYPE,INCLUDING POWER SUPPLIES, FOR USE WITH FOUNDATION FIELD-BUS INSTRUMENTS ONLY	Instrumentation and IT
53	6000010782	CONTROLLER; SMART VALVE POSITION TYPE	CONTROLLER; SMART VALVE POSITION TYPE,ANY RANGE,34-SAMSS-634,FOR USE WITH EMERGENCY SHUTDOWN VALVES.	Instrumentation and IT
54	6000013923	CABLE, FOUNDATION FIELDBUS	CABLE; ANY TYPE,34-SAMSS-913,CABLE, FOUNDATION FIELDBUS	Instrumentation and IT
55	6000014890	REAL-TIME TRANSIENT MODEL PLDS	DETECTOR LEAK; RTTM METHODS TYPE,FOR PIPELINE,SAES-Z-003,SYSTEMS USE MATHEMATICAL MODELS OF THE FLOW WITHIN A PIPELINE TO DETECT THE LEAK. FOR PIPELINE LEAK DETECTION SYSTEM (PLDS) APPLICATIONS.	Instrumentation and IT
56	6000014891	ACOUSTIC PRESSURE WAVES PLDS	DETECTOR LEAK; NEGATIVE PRESSURE WAVE (ACOUSTIC) TYPE,FOR PIPELINE,SAES-Z-003,THE ACOUSTIC PRESSURE WAVE METHOD ANALYSES THE RAREFACTION WAVES PRODUCED WHEN A LEAK OCCURS. FOR PIPELINE LEAK DETECTION SYSTEM (PLDS) APPLICATIONS.	Instrumentation and IT
57	6000014893	FIBER OPTIC SENSING PLDS	DETECTOR LEAK; FIBER OPTIC TYPE,FOR PIPELINE,SAES-Z-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
58	6000016111	DRAG REDUCING AGENT (DRA)	CHEMICAL; ANY,SAEP-501,DRA IT IS A CHEMICAL THAT IS COMPOSED OF LONG CHAINS OF VERY HIGH MOLECULAR WEIGHT POLYMERS SUSPENDED IN A CARRIER FLUID USED IN FLUID-TRANSPORTING-PIPELINE TO REDUCE PIPELINE FRICTIONAL LOSSES/PRESSURE DROP FOR THE PURPOSE OF INCREASING PIPELINE FLOW RATE AND/OR DECREASING PIPELINE OPERATING PRESSURE	Instrumentation and IT
59	6000014614	CUSTODY TANK GAUGING SYSTEM, RADAR	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
60	6000015250	Non-Metallic OCTG Products	CASING OCTG; THERMOSETTING POLYMERS REINFORCED WITH FIBERGLASS,API 15HR,45-SAMSS-006 API-5L,SIZE 4-1/2 IN -10-3/4 IN	Instrumentation and IT
61	6000009918	CUSTODY SYS TRUCK UNLOADING, POS DISP	SYSTEM:METERING; CUSTODY TRANSFER METERING TYPE,34-SAMSS-168,TRUCK UNLOADING, POS DISP	Instrumentation and IT
62	6000009917	CUSTODY SYSTEM, TRUCK LOADING, POS DISP	SYSTEM:METERING; CUSTODY TRANSFER METERING TYPE,34-SAMSS-167,TRUCK LOADING, POS DISP, TRUCK LOADING, PD METER, TRUCK LOADING, CORIOLIS METER	Instrumentation and IT
63	6000002856	VALVE; AUTOMATIC RECIRCULATION;	VALVE; AUTOMATIC RECIRCULATION TYPE,SIZE ANY,34-SAMSS-711	Instrumentation and IT
64	6000009890	CUSTODY PROVER, SMALL VOLUME, UNI PISTON	METER; UND PISTON(SMALL VOLUM) PROVER TYPE,34-SAMSS-119,FOR LIQUID CUSTODY TRANSFER	Instrumentation and IT
65	6000010821	ACTUATOR: VALVE; ELECTRIC FAILSAFE	ACTUATOR VALVE ELECTRIC; SIZE ANY,ANY ACTION,34-SAMSS-716,ELECTRIC ACTUATOR FOR OPERATING VALVE, FAILSAFE DESIGN	Instrumentation and IT
66	6000013921	ANALYZER, Proc Photometer/Spectrometer	ANALYZER; ANY RANGE,34-SAMSS-515,PROCESS PHOTOMETERS AND SPECTROMETERS INCLUDING TUNABLE DIODE (EXTRACTIVE)	Instrumentation and IT
67	6000012803	VALVE, RELIEF; SURGE PILOT OPERATED	VALVE RELIEF; SIZE ANY,ANY END CONN,ANY SUPPLY,ANY,SAES-J-605,SURGE, PILOT OPERATED TYPE, FACTORY TESTING IS REQUIRED FOR COMPLEX RATE-OF-RISE OR MODULATING VALVES.	Instrumentation and IT
68	6000014631	CABLE: SUBMARINE FIBER OPTIC	ABLE; SUBMARINE FIBER OPTIC CABLE TYPE,STAND-ALONE SUBMARINE IBER OPTICAL CABLE,18-SAMSS-006	Instrumentation and IT
69	6000009893	CUSTODY AUTOMATIC SAMPLING, LIQUID	SAMPLER; CUSTODY TRANSFER TYPE,34-SAMSS-525	Instrumentation and IT
70	6000009895	CUSTODY DENSITY METER, LIQUID	METER DENSITY; CUSTODY TRANSFER LIQUID TYPE,34-SAMSS-510	Instrumentation and IT
71	6000009898	CUSTODY CHROMATOGRAPH, GAS OR LIQUID	CHROMATOGRAPH PROCESS; FOR CUSTODY TRANSFER CHROMOTOGRAPHY, ANY DETECTOR, ANY CARRIER, 34-SAMSS-510	Instrumentation and IT
72	6000009900	CUSTODY FLOW COMPUTER, GAS, PANEL-MNTD	COMPUTER FLOW; PANEL MOUNTED TYPE,34-SAMSS-846,FOR GAS CUSTODY TRANSFER	Instrumentation and IT
73	6000009901	CUSTODY FLOW COMPUTER, LIQUID, FIELD-MNT	COMPUTER FLOW; FIELD MOUNTED TYPE,34-SAMSS-841, 34-SAMSS-846, FOR LIQUID AND GAS CUSTODY TRANSFER	Instrumentation and IT
74	6000009902	CUSTODY FLOW COMPUTER, GAS, FIELD MOUNTD	COMPUTER FLOW; FIELD MOUNTED TYPE,34-SAMSS-846,FOR GAS CUSTODY TRANSFER	Instrumentation and IT
75	6000014021	Analyzer; Physical Property	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
76	6000009831	CUSTODY METER, TURBINE, LIQUID	FLOWMETER TURBINE; CUSTODY TRANSFER LIQUID TYPE,ANY,34-SAMSS-117	Instrumentation and IT
77	6000009832	CUSTODY METER, POS DISPL, LIQUID	FLOWMETER POSITIVE DISPLACEMENT; CUSTODY TRANSFER LIQUID TYPE,ANY,34-SAMSS-118	Instrumentation and IT
78	6000009909	Custody Tank Management System, Radar	COMPUTER; FOR CUSTODY TRANSFER,34-SAMSS-321,CUSTODY TANK MANAGEMENT SYSTEM, RADAR	Instrumentation and IT
79	6000009881	Custody Meter, Multi-Path, Ultrasonic Liquid	FLOWMETER; CUSTODY TRANSFER LIQUID TYPE,CUSTODY TRANSFER LIQUID	Instrumentation and IT
80	6000002896	VALVE; RELIEF; SURGE GAS LOADED	VALVE RELIEF; SIZE ANY,ANY END CONN, ANY SUPPLY,ANY,SAES-J-605,SURGE GAS LOADED TYPE.#	Instrumentation and IT
81	6000013000	Multiplexer; Foundation Fieldbus (FF)	MULTIPLEXER; FOUNDATION FIELDBUS (FF) TYPE,SAES-J-904,AA MULTI-INPUT TEMPERATURE	Instrumentation and IT
82	6000001329	SIGNAL; TRAFFIC; INCLUDES CONTROLLER;	SIGNAL; TRAFFIC TYPE,SIZE ANY,INCLUDES CONTROLLER	Others
83	6000000943	ANODE;BACKFILL CARBON MATERIAL,ICCP,CP	ANODE; S CINED CARBON BACKFILL HODIC PROTECTION TYPE,FOR IMPRESSED CURRENT	Others

84	6000016831	FIRE AND GAS DAMPER (OFFSHORE)	DAMPER; FIRE & GAS DAMPER-OFFSHORE TYPE,SIZE VARIES,STAINLESS STEEL 316L SHEET OR BETTER,INTERNATIONAL MARITIME ORGANIZATION [IMO] & SAFETY OF LIFE AT SEA [SOLAS] EN 1751,FIRE & GAS DAMPER FOR OFFSHORE [FGD-O] APPLICATIONS SHALL CONFORM TO THE FOLLOWING: #1)APPROVED 3RD-PARTY CERTIFICATE TO INTERNATIONAL MARITIME ORGANIZATION [IMO] AND SAFETY OF LIFE AT SEA [SOLAS]. #2)FGD-O SHALL BE CONSTRUCTED AND ASSEMBLED IN ITS ENTIRETY AT FACTORY, INCLUDING ACTUATOR, INSULATION AND APPURTENANCES. #3)FGD-O SHALL BE CLASS 3 TYPE IN ACCORDANCE WITH EN 1751, MULTI-LEAF, OPPOSED BLADE TYPE COMPLETE WITH OPERATING CONTROLS AND INCORPORATING SPRING SIDE SEALS. #4)FGD-O CONSTRUCTION INSIDE BATTERY ROOMS SHALL BE CONSTRUCTED OF STAINLESS STEEL 316L SHEET OR BETTER. #5)ALL BLADES SHALL BE TOTALLY ENCLOSED WITHIN THE CASING WITH THE FGD-O IN THE FULLY OPEN POSITION. #6)FGD-O CLOSING TIME SHALL NOT BE GREATER THAN 3 SEC. #7)FGD-O SHALL BE EQUIPPED WITH FUSIBLE LINKS THAT ARE RATED FOR TEMPERATURES AS PER SOLAS/IMO. #8)LOCAL VISUAL INDICATION OF FGD-O OPEN OR CLOSE STATUS SHALL BE PROVIDED BY A VISIBLE POINTER. #9)ENGRAVED NAMEPLATES SHALL BE MECHANICALLY FIXED TO EACH FGD-O WHICH SHALL INDICATE, INFORMATION THAT INCLUDE, BUT NOT LIMITED TO THE FOLLOWING: #A) MANUFACTURER NAME #B) SERIAL NUMBER#C) TAG NUMBER#D) PROJECT REFERENCE#E) YEAR OF MANUFACTURE#F) AIRFLOW#G) SIZE#H) WEIGHT#I) FIRE RATING #J) DIRECTION OF AIRFLOW.#	Others
85	6000014911	SEPARATOR; AIR AND DIRT	SEPARATOR; SEPARATOR, AIR AND DIRT TYPE,ASME SECTION VIII, DIVISION 1	Others
86	6000013337	HOOD; FUME, COMMERCIAL COOKING	HOOD; FUME, COMMERCIAL COOKING TYPE,ANSI/ASHRAE 154	Others
87	6000001846	HEATER; DUCT; ELECTRIC;	HEATER DUCT; ELECTRIC ELEMENT,ANY	Others
88	6000014524	HUMIDIFIER: HVAC; DUCTED	HUMIDIFIER; ELECTRIC, GAS, OR HOT WATER COMMERCIAL/INDUSTRIAL TYPE,ANY,110 VAC-460 VAC, 60 HZ,ANSI/AHRI-640,ANSI/AHRI-640 CERTIFICATE	Others
89	6000002419	Water Filter Media	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
90	6000008555	Thermal & Electro-dialysis Desal Sys	DESALINATION; THERMAL & ELECTRO-DIALYSIS DESALINATION SYSTEMS TYPE,REVERSAL (EDR) EQUIPMENT	Others
91	6000008580	FILTER; MICRON FILTERS FOR WATER SERVICE	FILTER; WATER MEMBRANE FILTERS TYPE,MICRON FILTERS FOR WATER SERVICE CROSS-FLOW, DEAD-END CARTRIDGE FILTERS NOMINAL OR ABSOLUTE 1-100 MICRON. MATERIAL: STRING WOUND POLYPROPYLENE, PLEATED POLYPROPYLENE & POLYESTER, RESIN BONDED CELLULOSE, PVDF, POLYSULFONE. ULTRA FILTERS FOR WATER SERVICE CONFIGURATION: CROSS-FLOW SPIRAL WOUND, HOLLOW FIBER/CAPILLARY, PLATE-AND-FRAME POLYSULFONE, POLYETHERSULFONE. POLYACRYLONITRILE, CELLULOSE ACETATE. RATING: < 200 PSIG. CLASSIFICATION: WATER FILTRATION, MEMBRANE FILTRATION, CARTRIDGE FILTRATION. CONFIGURATION: MATERIAL: RATING: SIZE:	Others
92	6000014710	FLANGE; PIPE: CONNECTOR, MECHANICAL END	LANGE PIPE; CONNECTOR TYPE,ANY NPS,ANY,MECHANICAL END CONNECTORS	Others
93	6000000030	PIPE; NON-METALLIC; THERMOPLASTIC; CPVC;	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 WITHIN BUILDINGS, WATER FOR HUMAN CONSUMPTION, WATER FOR HEATING SYSTEMS.# SSURIZED	Pipe & OCTG
94	6000014681	SERVICE: WET -TYPE COMPOSITE REPAIR EXT.	SERVICE; WET-TYPE THERMOSET COMPOSITE FIBER REINFORCED COMPOSITE TYPE,SAEP-345,ASME-PCC2 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
95	6000003901	PUP JOINT: OCTG STEEL, SEAMLESS	PUP JOINT OCTG; STEEL,SEAMLESS,45-SAMSS-006,API-5CT,GR SPECIAL GR 95-125, H2S SVCS & NON H2S,SIZE 4-1/2 IN - 16 IN,ANY END CONN,2 - 15 FEET LG	Pipe & OCTG
96	6000003855	CASING: OCTG; API GR; SAW	CASING OCTG; STEEL,SAW,45-SAMSS-006,API-5L,SIZE 26 IN. AND LARGER	Pipe & OCTG
97	6000003877	TUBING: OCTG; API GR; SEAMLESS	TUBING OCTG; STEEL,SEAMLESS,API-5C2,API-5B 45-SAMSS-006,SIZE ANY	Pipe & OCTG
98	6000007293	COUPLING: OCTG; HIGH NICKEL	COUPLING OCTG; HIGH NICKEL ALLOY STAINLESS STEEL,SEAMLESS,API-5CT,ISO-13680 45-SAMSS-006,GR UNS N08020 OR EQUIVALENT,SIZE ANY,PREMIUM THREAD END CONN,ANY LG,COLLAPSE TEST PER API WITH ONE SAMPLE TESTED PER 200 JOINTS OF MOTHER TUBE	Pipe & OCTG
99	6000007303	CASING: OCTG; HIGH NICKEL; SEAMLESS	CASING OCTG; HIGH NICKEL ALLOY STAINLESS STEEL,SEAMLESS,API-5CT,ISO-13680 45-SAMSS-006,GR UNS N08028 OR EQUIVALENT,SIZE ANY,PREMIUM THREAD END CONN,AA. COLLAPSE TEST PER API WITH AB. ONE SAMPLE TESTED PER 200 JOINTS	Pipe & OCTG
100	6000007305	CROSSOVER: OCTG; HIGH NICKEL	CROSSOVER; OCTG, HIGH NICKEL ALLOY STAINLESS STEEL,SEAMLESS TYPE,PREMIUM THREAD TERMINAL,API-5CT,ISO-13680 45-SAMSS-006,COLLAPSE TEST PER API WITH ONE SAMPLE TESTED PER 200 JOINTS OF MOTHER TUBE, GR UNS N08020 OR EQUIVALENT	Pipe & OCTG
101	6000007307	PUP JOINT: CASING OCSG; HIGH NICKEL	PUP JOINT OCTG; HIGH NICKEL ALLOY STAINLESSSTEEL,SEAMLESS,API-5CT,ISO-13680 45-SAMSS-006,GR UNS N08028 OR EQUIVALENT,SIZE ANY,PREMIUM THREAD END CONN,COLLAPSE TEST PER API WITH ONE SAMPLE TESTED PER 200 JOINTS OF MOTHER TUBE	Pipe & OCTG
102	6000000049	PIPE; METALLIC; HFW CLASS B FOR NON SOUR	PIPE METALLIC; ALL SIZE NPS,ANY,STEEL,GR GRADE B THRU X70,HFW,API 5L,01-SAMSS-333,CLASS B,NON SOUR SERVICE	Pipe & OCTG
103	6000002481	TANK; FIBER GLASS; 32-SAMSS-002	TANK; ANY TYPE,ANY,FIBER GLASS,32-SAMSS-002	Static Equipment
104	6000001821	AIR HANDLING UNIT; AHU; CHILLED WATER OR	AIR HANDLING UNIT; AHU TYPE,CHILLED WATER OR DIRECT EXPANSION,ONSHORE ALL SIZES AND OFFSHORE LESS THAN 10 TONS COOLING,MANUFACTURER STANDARD	Static Equipment
105	6000001822	AIR CONDITIONING UNIT; SELF CONTAINED; O	AIR CONDITIONING UNIT; SELF CONTAINED TYPE,(PACKAGED UNIT) CERTIFIED TO AHRI 340 AND UL 1995 STD	Static Equipment
106	6000001823	AIR CONDITIONING UNIT; PACKAGED UNIT TRA	AIR CONDITIONING UNIT; PACKAGED UNIT TRAILERIZED TYPE,AIR COOLED,R-22 OR R-134A,MANUFACTURER STANDARD	Static Equipment

107	6000001826	A/C Unit,mini-split,DE below 5.5 Tons	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
108	6000001862	A/C UNIT;SPLIT;DIRECT EXP,5.5 TO 63 TONS	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
109	6000001881	AIR CONDITIONING UNIT; AIRCONDIONING AND	AIR CONDITIONING UNIT; AIRCONDIONING AND PROCESS REFRIGERATION SYSTEMS TYPE,ONSHORE ALL SIZES, OFFSHORE LESS THAN 10 TONS. COOLING,AHRI-210/240 (< 5.5 TONS),AHRI,EXPLOSION PROOF	Static Equipment
110	6000013333	AIR CONDITIONING UNIT; SPLIT	AIR CONDITIONING UNIT; SPLIT TYPE,DIRECT EXPANSION,R-22 OR R-134A,ASHRAE-127,UL-1995,PRECISION COOLING FOR CONTROL, COMMUNICATION, AND DATA PROCESSING	Static Equipment
111	6000001838	CONTROLLER; PROGRAMMABLE LOGIC; ENERGY M	CONTROLLER PROGRAMMABLE LOGIC; ANY INPUT PT,ANY OUTPUT P,SAES-K-011,UL-916 ASHRAE 135,ENERGY MANAGEMENT SYSTEM: BUILDING	Static Equipment
112	6000012733	CHILLER: ABSORPTION; WATER COOLED	CHILLER; ANY TYPE,ANY SUPPLY,AHRI 560,UL-1995 ASHRAE 90.1,ABSORPTION, SUSTAINABLE, HIGH EFFICINCY, COMPRESSOR-LESS, WATER COOLED DIRECT FIRED OR EXCESS/WASTE STEAM/HEAT FOR HVAC APPLICATION.	Static Equipment
113	6000002515	SKID WATER DISINFECTION SYSTEMS	GENERATOR; WATER DISINFECTION TYPE,HYPOCHLORITE,WATER DISINFECTION SYSTEMS INCLUDING: HYPOCHLORINATION, CHLORINE SYSTEMS, CHLORINE DIOXIDE, BROMINE SYSTEMS, UV SYSTEMS, OZONE SYSTEMS, ANY OTHER DISINFECTING SYSTEMS. MERGE WITH 6000002517.	Static Equipment
114	6000000097	JOINT; PIPE; EXPANSION; ANY METAL	JOINT EXPANSION; SIZE ANY, ANY LG, ASME B16.5	Static Equipment
115	6000000134	SLEEVE; PIPE; TWO HALVES; BOLTED FLANGED	SLEEVE PIPE BOLTED; ANY NOM PIPE,STEEL,ANY WP,FOR PIPE REPAIR,FOR PIPE REPAIR	Static Equipment
116	6000000150	TEE; PIPE, SPLIT TEE; HOT TAPPING; CS	TEE PIPE; ANY NPS,STEEL,EXTRUDED OR WELDED BRANCH, 02-SAMSS-006, SPLIT TEE, FLANGE WELDED TO BRANCH, FOR HOT TAPPING	Static Equipment
117	6000009264	JOINT, METAL TO METAL SEAL	COUPLING PIPE; METAL TO METAL (POSITIVE OR NEGATIVE) SEAL MECHANICAL TERMINAL,IN NPS,OY STEEL,MM (IN),PSI SUPPLY, M,GED MLESS UGHT,E URAL FINISH,ASME,ASME,(IN) (IN),ITIVE OR NEGATIVE ITIVE OR NEGATIVE JOINT; METAL TO METAL SEAL MECHANICAL TYPE,CS/ SS/ALLOY STEEL,(IN) (IN),ITIVE OR NEGATIVE ITIVE OR NEGATIVE	Static Equipment
118	6000014971	COUPLER:LPG LOADING,INCLUDE VAPOR	COUPLER; LPG LOADING TYPE,SIZE ALL SIZES,HARD PIPE TERMINAL,INCLUDE VAPOR AND BREAKAWAY COUPLERS,CONTACT CSD FOR DETAILS	Static Equipment
119	6000000296	VALVE; GATE; WEDGE OR DBL DISC; UP TO 12	VALVE GATE; SIZE UP TO NPS 12,ANY RATING, ALLEND S SUPPLY,CAST OR DUCTILE IRON BODY,04-SAMSS-035,AWWA,WITH OR WITHOUT ACTUATOR	Static Equipment
120	6000000315	VALVE; CHOKE; AUTOMATIC PLUG-AND-CAGE; H	VALVE CHOKE; PLUG-AND-CAGE SINGLE STAGE TRIM TYPE,UPTO 6 INCH MAXIMUM ORIFICE BODY,PR 10,000 PSI,FLANGED HUBBED OR BUTTWELD END CONN,STEEL BODY,04-SAMSS-055,ISO 10423,WITH OR WITHOUT ACTUATOR	Static Equipment
121	6000014491	VALVE; NPS 2 TO 20, COMPOSITE MATERIAL	VALVE; BUTTERFLY, BALL OR CHECK TYPE,SIZE NPS 2 THRU 20,ASME CLASS 150 & 300 SUPPLY,FLANGED END CONN,COMPOSITE (NON-METALLIC) BODY	Static Equipment
122	6000015604	VALVE;CHOKE;MS;UP TO 6 IN,2K-5KPSI,API6A	VALVE CHOKE; ANY BODY,UP TO 6 INCH MAX ORIFICE,PR 2000-5000 PSI SUPPLY,FLANGED HUBBED OR BUTTWELD END CONN,ANY BODY,MULTISTAGE TRIM,04-SAMSS-055,ISO 10423	Static Equipment
123	6000002879	SKID; DRYER, INSTRUMENT AIR & COMPRESSED	SKID; DRYER TYPE,32-SAMSS-038,INSTURMENT AIR & COMPRESSED GAS, PRESSURE VESSELS AND MAIN COMPONENTS TO BE SOURCED FROM APPROVED VENDORS PER THE APPLICABLE 9COMS AND SAMSS.	Static Equipment
124	6000011206	SKID; FILTRATION SYSTEM	SKID; 32-SAMSS-038,FILTRATION SYSTEM	Static Equipment
125	6000017260	SKID, NITROGEN; PRESSURE SWING ADSORPTIO	SKID; NITROGEN ADSORPTION (PSA) SSURE SWING TYPE,32-SAMSS-038,NITROGEN GENERATION UNIT, PSA (PRESSURE SWING ADSORPTION) TYPE. USES ADSORBENT SUCH AS CARBON MOLECULAR SIEVE. MORE THAN 95% VOLUME PURITY NITROGEN	Static Equipment