

Annex II – Lists of PFAS substances containing in components and materials used by Honeywell in Aerospace & Defence applications.

1) List of PFAS substances used in components of Aerospace & Defence applications.

Substance Name / Acronym	CAS number	Trade Names / Pseudonym	PFAS type
Polytetrafluoroethylene (PTFE)	9002-84-0	Teflon, Zonyl, MFC	Fluoropolymer
Fluorinated ethylene propylene (FEP)	25067-11-2	DF, Hostaflon, Niflon, Teflon	Fluoropolymer
Ethylene tetrafluoroethylene (ETFE)	25038-71-5	Tefzel, Fluon, Neoflon, Teflon	Fluoropolymer
Polyvinylidene fluoride (PVDF)	24937-79-9	Gore-Tex, Kynar,	Fluoropolymer
Polychlorotrifluoroethylene (PCTFE)	9002-83-9	Aclar, Hydroblock	Fluoropolymer
Poly(difluoromethylene), α -(cyclohexylmethyl)- ω -hydro-	65530-85-0	-	Fluoropolymer
Ethene,1,1,2,2-tetrafluoro-, oxidized, polymd.	69991-61-3	FOMBLIN Z-15	Fluoropolymer
Poly(difluoromethylene), α -(2,2-dichloro-2-fluoroethyl)- ω -hydro-(9CI)	163440-89-9	-	Fluoropolymer
Poly(difluoromethylene), α -chloro-w-(1-chloro-1-fluoroethyl)- (9CI) (PDCVE)	131324-06-6	-	Fluoropolymer
1-Propene, polymer with 1,1,2,2-tetrafluoroethene (PTFE/PP)	27029-05-6	-	Fluoropolymer
1-Butene, 4-bromo-3,3,4,4-tetrafluoro-, polymer with 1,1-difluoroethene, 1,1,2,3,3,3-hexafluoro-1-propene and 1,1,2,2-tetrafluoroethene	74398-72-4	-	Fluoropolymer
Polyvinylidenefluoride / hexafluoropropene (FKM)	9011-17-0	Kel-F, Viton, Dyneon, Tecnoflon, DAI-EL	Fluoroelastomer
FFKM (PTFE/PMVE)	Copolymer (116-14-3/1187-93-5)	Kalrez, Kyflon, Chemraz	Perfluoroelastomer
Perfluoropolyether (PFPE)	60164-51-4	Fomblin,	Perfluoropolyether

Propane, 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoro- (HFE)	163702-08-7	-	Hydrofluorocarbon
Butane, 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-	163702-07-6	Novec TM 7100, Cosmetic Fluid, HFC 7100	Hydrofluorocarbon
Perfluoro compounds, C5-18 (heat transfer fluid)	86508-42-1	FluorinertR(FC-770)	Perfluoroalkanes & Aromatics
Perfluoro(2-methyl-3-pentanone)	756-13-8	FK-5-1-12 (Novec 1230)	Fluorinated ketone
Poly(difluoromethylene), α -fluoro- ω -[2-[(1-oxooctadecyl)oxy]ethyl]-	65530-65-6	-	Fluorotelomer-based non-polymers*

2) Types of components for Aerospace & Defence applications/equipment where PFAS are required.

Structural materials: Clamps, bearings, connectors, printed boards, bobbins, electromagnetic coils, cables, wire, bushings, caps, covers, seals, insulators, piston guides, flanges, pipes, ignitors, packing, o-rings, retainers, spacers, valves.

Sealants: Covers, gears and gear assemblies, stators, actuators, bellows, screws, adapters, casting, chassis, bypass indicators, brackets, carriers, alternators, housing, harnesses, filters, circuit cards, compressors, clutches, coolers, diffusers, diaphragms, couplings, doors, ducts, fixtures, frames, fans, engines, turbines, gearshafts, indicators, inlets, modules, jets, manifolds, valves, motherboards, levers, nozzles, motors, panels, pads, nuts, printed boards, power sections, retainers, pumps, puller sleeves, bearings, heat shields, rotors, seals, starters, thermostats, wheels, wipers.

Components with plating: Armatures, solenoids, bobbins, cases, nuts, bushings, housings, covers, plates, poppets, pins, rotors, sleeves, magnets, rods, screws, stop assemblies, stop yokes.

Adhesive: Accelerometers, detector, sensors, GPS, servos, resonating beam, refuelling systems, light subassemblies, threadlocking, seals, pipes, ducts.

Tapes: Covers, valves, trigger coils, bearings, wire harness, harnesses, engines, hoses, panels, generator electrical harnesses, accessories, plumbing and electrical assemblies, APUs, antiseize, fire detectors, power sections.

Components containing batteries: Printed boards, AIM upgrade power supplies, PCB power supplies, VXP, Hardwires, VXP systems, processor boards, vibration monitors, battery covers, VMS, dimulators.

Coatings: Actuators, brakes, valves, compressors, frames, fans, bobbins, clips, tubes, wiring, covers, brackets, cylinders, doors, engines, fuel control units, flanges, flappers, gearboxes harnesses, housings, installation kits, power units, pumps, refrigeration systems, retainers, screws, seals, sensors, pistons, plates, wheels.

Gaskets: Seals, rings, harnesses, washers, tubes, wipers, retainers, heat shields, screws, pins, locking, core cowls, flanges, pads, pistons.



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Z.A. La Pièce 16

1180 Rolle

Switzerland

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Heat transfer fluids: Mechanism and board assemblies, accelerometers, bearing flexures, blanks.

Barrier Films: Assembly isolators, vibration isolation systems, momentum control systems.

Insulation: Tube assemblies, metal lube, air-oil cooler supply, insulation shields, chassis, engines, gearboxes, actuators, antennas, cables, compressors, computers, circuit boards, coils, displays, sensors, fire detectors, harnesses, panels, generators, inductors, manifolds, housing, lights, magnets, motors, piping.

Lubricants: Actuators, afterbodies, ball screw and nuts, brakes and clutches, connector lubricant, coupling clamps, diaphragms, drive shafts, fans, gearboxes, housing, lubricant PTFE spray, module assembly, pressure vessel, starters, switches, mold release, valve.

Moulding: Piston actuator assembly, PTFE filled mouldings, polyamide-imide, actuators, arms, bushings, bearings, springs, flappers, engines, guides, housing, valves, seals, caps, rings, poppets, plates, washers.

Rubber: Packing, seal plan encased, bracket assembly, strip rubber, chip detector kit, adapter cable, harness, harness assembly, gearbox assembly, piping and accessories, oil tank assembly, magnetic plug, seal o-ring, end bell assembly, gasket cover, seal hydraulic, ring assembly wiper, seal shaft, seal brush, saddle, seal cap, pump assembly, seal pressure, rubber fluorocarbon.

Seals: Seal butterfly, ring piston, ring guide, piston set, sleeve inner, guide spring, bushing.

Thermoplastic: Bearing ball, pad wheel support, brakes.