

December 17, 2025

Subject: Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH)

Background

Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) is a European Union regulation (2006/1907) which entered into force on June 1, 2007. This covers the REACH Candidate List of Substances of Very High Concern (SVHC) as announced in ECHA/NR/25/35 dated November 5, 2025 (251 substances) under EU Directive 1907/2006.

Definitions

- **Article:** An object that has been given a specific shape or design which determines its function to a greater degree than does its chemical composition (Example: Swagelok products such as fittings or valves).
- **European Chemicals Agency (ECHA):** The European Chemicals Agency (ECHA) is the primary regulatory body overseeing REACH compliance
- **Mixture:** A mixture is a mix or solution of two or more substances. Under the EU chemicals legislation, mixtures are not considered substances.
- **Polymer:** A natural or synthetic compound of usually high molecular weight
- **Preparation:** A mixture or solution composed of two or more substances (Example: Swagelok® Real Cool Snoop® liquid leak detector which consists of Ethylene Glycol, surfactant, and water).
- **Substance:** A chemical element and its compounds (Example: Ethylene Glycol).
- **Substance of Very High Concern (SVHC):** A substance identified on the [Candidate List](#) due to potential carcinogenic, mutagenic, reproductive, toxic, and/or bioaccumulative hazards.

“Registration” of a Substance with European Chemicals Agency (ECHA)

- **Overview:** REACH requires that any *substance* manufactured in or imported into the European Union must be [registered](#) with ECHA when certain criteria are met. Registration applies to substances on their own, substances in mixtures and certain cases of substances in articles. When registration is required, the registrant must submit a registration dossier to ECHA containing hazard and risk information about the applicable substance.
- **Impact on Swagelok:** Swagelok does not presently have any registration requirements under REACH.
 - **Substances on their own or in mixtures/preparations:** Swagelok imports a small number of substances within mixtures into the European Union (Ex. Swagelok Real Cool Snoop® liquid leak detector); however, Swagelok’s imports do not require registration because the total amount of each substance imported by Swagelok *on its own or as a mixture* is below the registration threshold of one tonne per year.
 - **Substances in articles:** Registration of a *substance within an article* is only required if the substance is intended to be released from the article within normal conditions of use (Ex. the ink within an inkjet printer cartridge is intended to be released in the normal function of printing with the cartridge or fragrance within a scented children’s toy). Release due to aging, wear and tear, or disposal is outside the scope of registration requirements. Swagelok’s articles do not contain substances intended to be released as part of the normal function of the article and therefore do not require registration. There is also a one tonne per year threshold for the required registration of a substance within an article.

“Authorization” (Annex XIV) by European Chemicals Agency (ECHA)

- **Overview:** When a substance is identified as an SVHC by being added to the Candidate List, it means that the substance is being evaluated for future inclusion on Annex XIV (“Authorisation List”). If a substance is added to the [Authorisation List](#) in Annex XIV, then authorization from the ECHA is required prior to import/use in the European Union under certain circumstances
- **Impact to Swagelok:** Swagelok products do not contain substances that require authorization under the Authorisation List (Annex XIV).

“Restriction” (Annex XVII) by European Chemicals Agency (ECHA)

- **Overview:** Annex XVII contains a list of restrictions on the import/use of certain substances within the European Union
- **Impact to Swagelok:** Swagelok products do not contain substances subject to restrictions under Annex XVII.

Using this Document

REACH compliance status for most standard Swagelok products can be determined using the information in Table 1 below.

- Example 1: Part Number – SS-810-1-8
 - MS-01-140 notes in Table 1: Lead in brass and carbon steel components, Hexavalent Chromium and Cadmium in aluminum components
 - As explained in more detail in the product catalogue, the “SS” in the part number indicates that it is made of stainless steel, so the brass, carbon steel and aluminum notes in the table would not apply and the product does not contain SVHCs above the 0.1% w/w threshold. This fitting is made entirely from stainless steel and does not contain any brass, carbon steel, or aluminum, therefore it does not contain SVHCs above the 0.1% w/w threshold.
- Example 2: Part Number – SS-1RF4
 - MS-01-164 notes in Table 1: Lead in brass and carbon steel components, Cadmium plating on 1, 18, and 20 series steel fasteners
 - This valve has a stainless steel body and uses 1b Component, 1② Series handle materials. Refer to the Materials of Construction table in catalog MS-01-164.
 - This valve contains REACH SVHCs in both the brass insert in the phenolic handle and the nickel cadmium-plated steel set screw and therefore contains SVHC above the 0.1% w/w threshold.
- Example 3: Part Number – SS-43S6MM-31C
 - MS-02-331 notes in Table 1: Lead in brass components, See MS-02-343 notes for actuated options, Note: Brass 40 series handle insert does not contain lead
 - MS-02-343 notes in Table 1: Lead in bronze components, Cadmium plating on internal screws, cap screws, and retaining rings, Lead in brass and carbon steel mounting bracket kit components
 - This valve has a stainless steel body and a 31 model pneumatic actuator. Refer to the Materials of Construction table in catalogs MS-02-331 and MS-02-343.
 - This actuated valve assembly contains SVHC above the 0.1% w/w threshold; the bronze shaft bushing, the cadmium-plated steel internal screw, the cadmium-plated cap screw, and the cadmium-plated retaining ring actuator components. The brass insert in the 43 series nylon handle does not contain lead, so this valve without the actuator (SS-43S6MM) does not contain SVHCs above the 0.1% w/w threshold.

Table 1		
All standard catalog offerings do not contain SVHCs above the 0.1% threshold established by the REACH regulation unless otherwise indicated in this table.		
Catalog Description	Catalog #	SVHC above threshold in component
PFA Tube Fittings	MS-01-05	None present
Industrial Excess Flow Valves, XS Series	MS-01-110	None present
Quick-Connects	MS-01-138	Lead in brass components Bis(α,α-dimethylbenzyl) peroxide in QC, QM, and QF series with EP O-rings (EP suffix code)
Gaugeable Tube Fittings and Adapter Fittings	MS-01-140	Lead in brass and carbon steel components Hexavalent Chromium and/or Cadmium in carbon steel, brass, and aluminum components Aluminum jam nuts may contain lead. Please submit ServiceNow case to Compliance with batch number for review. Straight fittings with silicone O-ring option (AV) contains octamethylcyclotetrasiloxane Straight fittings with EP O-ring option (AU, HV70) contains Bis(α,α-dimethylbenzyl) peroxide Straight fittings with neoprene O-ring option (CN) contains Ethylene Thiourea
Proportional Relief Valves, R Series	MS-01-141	DEHP in components SS-3AS-R4-BN and SS-3AS-R4-EP Ethylene Thiourea in all R series neoprene (NE) seal options Bis(α,α-dimethylbenzyl) peroxide in all R series EPDM (EP) seal options R4 series neoprene bonded poppet also contains 2,2'-Methylenebis (6-tert-butyl-p-cresol) Bis(4-chlorophenyl) Sulphone in components SS-3AS-R4-VI and SS-3AS-RL3-VI Lead in lock wire crimp shipped with spring kits
Metering Valves, S, M, and 31 Series	MS-01-142	Lead in brass components
Ball Valves, General Purpose and Special Application, 60 Series	MS-01-146	Lead in brass components Cadmium plating on steel fasteners T63M, T65M, A60T series has three listed siloxanes on flange seals See MS-02-343 notes for actuated options
Pipe Fittings	MS-01-147	Lead in brass and carbon steel components Bis(α,α-dimethylbenzyl) peroxide in Pipe Fittings with EP O-ring (EP, HV70 suffix code)
Weld Fittings, Ultrahigh-Purity and Industrial	MS-01-149	None present
Compact, High-Flow Gas Regulators, HF Series	MS-01-156	None present
Stainless Steel Titanium Alloyed Tubing (Metric)	MS-01-158-SCS	None present
Integral-Bonnet Needle Valves, O, 1, 18, 20, and 26 Series	MS-01-164	Lead in brass and carbon steel components Cadmium plating on 1, 18, and 20 series steel fasteners Cadmium and hexavalent chromium on 1 and 26 series carbon steel packing nut
Springless Diaphragm Valves for High Performance, DP Series	MS-01-165	None present
Trunnion Ball Valves, 83 Series and H83 Series	MS-01-166	None present, see MS-02-343 for actuated options Note: Brass 83 series handle insert does not contain lead
Severe-Service Union-Bonnet Needle Valves, N Series and HN Series	MS-01-168	Cadmium plating on handle pin and steel fasteners Lead in N series phenolic handle options Lead in aluminum and bronze actuator components
Diaphragm Valves, LD Series	MS-01-172	Lead in brass and bronze components
SAF 2507 Super Duplex Weld Fittings	MS-01-173	None present
Swagelok Gaugeable SAF 2507 Super Duplex Tube Fittings	MS-01-174	None present

Table 1 (cont.)		
All standard catalog offerings do not contain SVHCs above the 0.1% threshold established by the REACH regulation unless otherwise indicated in this table.		
Catalog Description	Catalog Description	Catalog Description
Check Valves, C, CA, CH, CP, and CPA Series	MS-01-176	Lead in brass components Bis(4-chlorophenyl) Sulphone in multiple CH series bonded poppets Bis(α,α -dimethylbenzyl) peroxide in CH series aflas O-rings with (PS-39261, AF suffix code) Bis(α,α -dimethylbenzyl) peroxide in C, CA, CH, CP series EPDM O-rings (EP suffix code) Ethylene Thiourea in all series with neoprene O-ring Option (NE suffix code)
Sample Cylinders, Accessories, and Outage Tubes	MS-01-177	Cadmium plating on end caps and neck rings
Hose and Flexible Tubing	MS-01-180	Lead in brass components Lead in lanyard tag crimp U series silicone contains three listed siloxanes Bis(α,α -dimethylbenzyl) peroxide in Hoses with EP O-ring (AU suffix code)
Stainless Steel Seamless Tubing and Tube Support Systems	MS-01-181	Carbon steel cushioned clamp supports contain hexavalent chromium
Ultrahigh-Purity (UHP) and High-Purity Stainless Steel Tubing	MS-01-182	None present
Bellows-Sealed Valves, B Series	MS-01-22	Lead in brass components Lead in 5 series aluminum actuator components
Bellows-Sealed Metering Valves, BM Series	MS-01-23	Lead in brass BMG and BMRG option
VCR® Metal Gasket Face Seal Fittings	MS-01-24	Bis(α,α -dimethylbenzyl) peroxide in VCR Fittings with EP O-ring (EP suffix code)
VCO® O-Ring Face Seal Fittings	MS-01-28	None present
Ultra-Torr® Vacuum Fittings	MS-01-32	None present
Electric Actuators	MS-01-35	Lead in brass motor standoff Cadmium plating on mounting fasteners
Bellows-Sealed Valves, H Series	MS-01-36	None present
Bellows-Sealed Valves, U Series	MS-01-38	Lead in aluminum and bronze actuator components
Nonrotating-Stem Needle Valves, D Series	MS-01-42	Lead in brass components Cadmium plating on steel fasteners
Rising Plug Valves, 4P and 5P Series	MS-01-49	None present
Gauge Valves	MS-01-52	None present
Toggle Valves	MS-01-54	Lead in brass components
PFA Plug Valves, 43 Series	MS-01-56	None present
Plug Valves, P4T and P6T Series	MS-01-59	Lead in brass components Ethylene Thiourea in P4T series PTFE-coated neoprene O-ring option (TN suffix code) Bis(α,α -dimethylbenzyl) peroxide in P4T and P6T Series with (PS-4298) Bis(α,α -dimethylbenzyl) peroxide in all Plug Valve Series with PTFE-coated EP O-ring (TE suffix code)
Bleed Valves and Purge Valves	MS-01-62	Lead in brass and carbon steel components Cadmium plated cap on carbon steel purge valve
Diaphragm Valves, DL and DS Series	MS-01-73	Lead in brass components
High-Pressure, Pneumatically Actuated Bellows-Sealed Valves, HB Series	MS-01-76	Hexavalent chromium in actuator retaining rings Lead in bronze components Lead in brass indicator switch components

Table 1 (cont.)

All products in the listed catalogs do not contain SVHCs above the 0.1% threshold established by the REACH regulation unless otherwise indicated in this table.

Catalog Description	Catalog #	SVHC above threshold in component
Leak Detectors, Lubricants, and Sealants	MS-01-91	None present
Filters, FW, TF, and F Series	MS-01-92	Lead in gaskets* Lead in brass components Bis(α,α -dimethylbenzyl) peroxide in TF Filters with EP O-ring (PS-46617)
Heat Exchanger Tube Plugs	MS-01-93	Lead in brass and carbon steel components Hexavalent chromium in carbon steel tube plugs
Bellows-Sealed Valves, BN Series	MS-01-94	Lead in bronze components
Lift Check Valves, 50 Series	MS-01-98	None present
D60 Series Distribution Block Valves	MS-02-02	None present
Bellows-Sealed 3-Valve Manifold	MS-02-07	None present
Instrumentation Blowdown Valves, 6DB Series	MS-02-118	Cadmium plating on steel fasteners
Stainless Steel Tubular Fittings, Ultrahigh-Purity and Chemically Cleaned and Passivated	MS-02-125	None present
Swagelok SAF 2507 Super Duplex Tubing	MS-02-151	None present
Ultra-High Purity Gas Filters, SCF Series	MS-02-156	None present
High-Flow, Manual Gas Pressure Regulators, HF Series	MS-02-157	Lead in brass components Note: 1.125 MSM model return disk is made from brass
Pressure Gauges, Ultrahigh-Purity and Clean Dry Air	MS-02-163	None present
Pressure Gauges, Industrial and Process, PGI Series	MS-02-170	None present
Ultrahigh-Purity Fluoropolymer Diaphragm Valves, DRP Series	MS-02-171	None present
Gaugeable Chromatograph and Column End Fittings	MS-02-173	None present
T2, TT2 Series Stream Select, Switching, and Shutoff Valve Assemblies	MS-02-174	None present
Valve Lockout Accessory	MS-02-18	None present
Modular Platform Components (MPC) Surface-Mount Components, Substrates, Manifolds, Mounting Components, and Assembly Hardware	MS-02-185	Bis(α,α -dimethylbenzyl) peroxide in MPC Series with EPDM (EP) O-ring Option
Swagelok Products Compliant With The Transportable Pressure Equipment Directive (TPED)	MS-02-193	Cadmium plating on steel fasteners Cadmium plating on end caps and neck rings
High-Purity PFA Fine Thread Flare Fittings	MS-02-195	None present
Ultrahigh-Purity Fluoropolymer Tubing	MS-02-196	Tools have not been evaluated
Flange Adapters	MS-02-200	None present
Distribution Manifold, J6 Series	MS-02-214	None present
Forged-Body Needle Valves, 10 000 psig (689 bar), F10 Series	MS-02-215	None present
Steam Trap Test Station with Universal Mount	MS-02-221	None present
Industrial Pressure Transducers, S Model	MS-02-225	None present
Pressure Regulators, bm ies	MS-02-230	Lead in brass and bronze components Lead in zinc plated spring button
High-Flow Springless Diaphragm Valve, DF Series	MS-02-24	None present
60 Series Ball Valve Vent Options	MS-02-28	None present
Ultrahigh-Purity Valves for Atomic Layer Processing, ALD Series	MS-02-301	Lead in Optical Position Sensors and Optical Sensor Amplifiers Lead in Solenoid Pilot Valve brass components
Swagelok Alternative Fuel Service (AFS) Ball Valves for High-Pressure, High-Flow Applications	MS-02-303	Lead in gaskets* See MS-02-343 notes for actuated options
General Utility Service Needle Valves, GU Series	MS-02-312	Hexavalent chromium in carbon steel bodies

Table 1 (cont.)		
All products in the listed catalogs do not contain SVHCs above the 0.1% threshold established by the REACH regulation unless otherwise indicated in this table.		
Catalog Description	Catalog #	SVHC above threshold in component
Pre-Insulated Tubing Bundles, Light, Heavy, and Electric Traced	MS-02-316	RTV sealant contains three listed siloxanes
Ultrahigh-Purity Fluoropolymer O-Ring Free Check Valve	MS-02-320	Tube Flaring System has not been evaluated
DP Series Springless Diaphragm Valves (1.125 in.)	MS-02-325	None present
Stream Selector System for Process Analyzer Applications, SSV Series	MS-02-326	Bis(α,α-dimethylbenzyl) peroxide in SSV series with EP O-rings (PS-29828 and PS-44801)
One-Piece Instrumentation Ball Valves, 40G Series and 40 Series	MS-02-331	Lead in brass components See MS-02-343 notes for actuated options Note: Brass 41, 42, 43, and 44 series handle insert does not contain lead
Gaugeable Alloy 400 Mechanically Attached Pipe and Tube Fittings	MS-02-332	Tools have not been evaluated
Pressure Gauges for Panel Buildings, PBG Series	MS-02-333-E	None present
Process Interface Valves, Kenmac Series Process Interface Valves and Process and Instrument Monoflanges	MS-02-340	Lead in gaskets*
Swagelok Ball Valve Actuation Options	MS-02-343	Lead in bronze components Cadmium plating on internal screws, cap screws, and retaining rings Lead in brass and carbon steel mounting bracket kit components Lead, lead monoxide, and ETU in ASCO solenoid valves used with ISO 5211 compliant actuators Lead, lead monoxide, BpA, hexahydromethylphthalic anhydride, and di-tert-butyl-2,2'-methylenedi-p-cresol in P&F position sensors for ISO 5211 compliant actuators
Multipurpose Ball Valves, SK Series	MS-02-345	Lead in gaskets* See MS-02-343 notes for actuated options
Variable Area Flowmeters, G Series and M Series	MS-02-346	Lead in limit switch option for all series. Lead in brass handle inserts for all series.
Temperature Measurement Devices, Bimetal Thermometers and Thermowells	MS-02-353	None present
Compact Gauge Valves for Gauge Isolation and Venting	MS-02-355	Cadmium plating on 1 series steel fasteners
Bleed Valves, Special Alloy Materials, BV Series	MS-02-356	None present
Trunnion Ball Valves, Special Alloy Materials, 83 Series	MS-02-357	None present See MS-02-343 notes for actuated options Note: Brass 83 series handle insert does not contain lead
Fluid Distribution Header, FDH	MS-02-358	FDH header is compliant. Reference individual product series for valves.
Dielectric Fittings	MS-02-36	None present
Pressure Gauges, General Purpose Gauge with ECE R110 Approval, PGN Series	MS-02-363	Lead in optional brass end connection
Positionable Pressure Gauges, PPG Series, Models B, P, and S	MS-02-364	None present
Severe-Service Union Bonnet Needle Valves, Special Alloy Materials, N Series and HN Series	MS-02-365	Cadmium plating on steel fasteners
Springless Diaphragm Valves (1.125 in.) for Modular Gas Systems, DE Series	MS-02-366	Actuated options: DEHP in green visual indicators (BN-90-8-009-GR) and red visual indicators (MS-5B-DE3-RD)
Tube Facing Tools	MS-02-426	Lead in carbon steel components
Pressure Regulators, RHPS Series	MS-02-430	None present

Table 1 (cont.)		
All products in the listed catalogs do not contain SVHCs above the 0.1% threshold established by the REACH regulation unless otherwise indicated in this table.		
Catalog Description	Catalog #	SVHC above threshold in component
Tank Blanketing Pressure Regulators, RHPS Series	MS-02-431	None present
Proportional Safety Relief Valves, PRV Series	MS-02-432	None present
Sanitary Pressure Regulators, RHPS Series	MS-02-436	None present
Jacketed Tube Connector (JTC)	MS-02-438	None present
Special Alloy Ball Valves, 60 Series	MS-02-439	None present See MS-02-343 notes for actuated options
Check Valves, Special Alloy Materials, CH Series	MS-02-440	Bis(4-chlorophenyl) Sulphone in multiple CH series bonded poppets Bis(α,α-dimethylbenzyl) peroxide in CH series aflas O-rings with (PS-39261, AF suffix code) Bis(α,α-dimethylbenzyl) peroxide in C, CA, CH, CP series EPDM O-rings (EP suffix code) Ethylene Thiourea in all series with neoprene O-ring Option (NE suffix code)
Instrument Manifolds Systems--Instrument, Direct, and Remote-Mount Manifolds and Modular Systems	MS-02-445	Cadmium in steam trace blocks Other mounting kits and accessories have not been evaluated
Assembly-by-Torque (AbT) Fittings	MS-02-466	None present
Medium- and High-Pressure Fittings, Tubing, Valves, and Accessories	MS-02-472	Lead in carbon steel and bronze components Cadmium plating on steel fasteners in Sno-Trik valves and actuators Lead in factory set options Bis(α,α-dimethylbenzyl) peroxide in nitrile O-rings in Soft-Seal Poppet Check Valves Bis(α,α-dimethylbenzyl) peroxide in Adjustable Pressure RVSA Relief Valves, Set Pressure RVS Relief Valves with HNBR O-ring option (-H) Bis(α,α-dimethylbenzyl) peroxide in FKB Valves with HNBR O-ring option (-H) Bis(α,α-dimethylbenzyl) peroxide in FKB Valves with EP O-ring option (PS-41772, PS-53402) Bis(α,α-dimethylbenzyl) peroxide in Block and Bleed Valves with HNBR O-ring option (-H) Bis(α,α-dimethylbenzyl) peroxide in FK Fittings with EP O-ring option (EP suffix code)
Cone and Thread Fittings -- Alloy SAF 2507 Material	MS-02-474	Tools have not been evaluated
6-Moly Seamless Tubing	MS-02-478	None present
Fire Series Ball Valves, A60T Series	MS-02-47-E	See MS-02-343 notes for actuated options
Low Pressure Header	MS-02-480	LPH header is compliant. Reference individual product series for valves.
Subsea Weld Fittings	MS-02-481	Tools have not been evaluated
General Service Ball Valves, GB	MS-02-484	Lead in gaskets* See MS-02-343 notes for actuated options
Process Regulators	MS-02-492	Lead in pilot regulator zinc plated spring button and upper spring button
Bellows-Sealed Valves for Switching Service, BY Series	MS-02-58	None present
Vertical Flow Sensor, FV4 Series	MS-02-60-SCS	None present
Bellow-Sealed Valves, Maintenance Kits	MS-02-66	Bronze bushing in BN and HB series kits contains lead
Solenoid Valves for Electropneumatically Actuated Bellows and Diaphragm Valves	MS-02-70	None present
Coaxial Closure Fittings	MS-02-71	None present
Gas Filters, FC Series	MS-02-82	None present
All-Welded Check Valves, CW Series	MS-02-89	None present

Pressure Gauges for the Sanitary Industries, PSD and PSF Series	MS-03-10	None present
Biopharm Fittings, TS Series	MS-03-13	None present
Vacuum Fittings, Adapter Fittings	MS-03-18	None present
Swagelok KCA Series Continuous Gas Delivery System	MS-18-01-E	Mounting plate is compliant. Reference individual product series.

*** If RoHS compliance is needed for a standard item from this catalog, please add -RH to the part number. PS-59085 was formerly used for RoHS compliance on these products. For clarification, please contact Technical Service.**

Note: Neoprene o-rings used with Swagelok fittings and/or valves may contain Ethylene Thiourea (CAS number 96-45-7). Please submit ServiceNow request to Compliance for review.

The list of Swagelok products identified in Table 1 and the noted compliance status with the restrictions of the REACH Directive are based upon information obtained from sources including suppliers, our own review, and in limited instances internal and third-party testing. This information in Table 1 is accurate to the best of our knowledge as of the date of this letter, subject to the disclaimers herein. Swagelok monitors changes to the Candidate List, Authorisation List (Annex XIV) and Restriction List (Annex XVII) and will periodically adjust its analysis and evaluation of requirements discussed herein in accordance with changes to the respective lists.

Swagelok has implemented systems to address compliance with environmental regulations and laws that impact its business and customers. However, Swagelok does not conduct regular independent testing of materials and disclaims any such responsibility. Customers are solely responsible for purchasing parts and assemblies that meet the needs of their business and using, handling and managing such parts and assemblies in accordance with product-related instructions and warnings, the SDS, and applicable laws and regulations. As some of the information is based upon data provided from third party sources, Swagelok makes no representation or warranty as to the accuracy of such information. For example, as noted, Swagelok does not routinely perform testing on all raw materials or final products, and thus the potential may exist for the unintentional presence of chemicals or substances that were not disclosed to Swagelok. Our efforts are on-going, and new information may be received after the date of this letter, including changes to the Candidate List or other annex lists; Swagelok undertakes no affirmative duty to update the information contained in this letter after issuance except to the extent that may be required by law.

Sincerely,

DocuSigned by:

Gary Matson

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Gary Matson

Manager- Corporate Compliance