

DG CHEMICALS
SPECIALITY CHEMICALS FOR INDUSTRY

This is to certify that

Wayne Benbow

Has completed the relevant training on the safe use of
Flocculants and Drop Testing Methods

Date completed: 18/05/2022



Granville Meirs
Director DG Chemicals

HAZARD	RECEPTOR	PATHWAY	RISK MANAGEMENT	PROBABILITY OF EXPOSURE	CONSEQUENCE	WHAT IS THE OVERALL RISK
Management of onsite water treatment areas using anionic flocculant	<ul style="list-style-type: none"> River beds Surface water Animal habitats Groundwaters Recreations waters 	Internal Watercourse via water treatment area	<ul style="list-style-type: none"> Operational training (including mixing dosing levels and testing). Identification of correct flocculant required consulting with suppliers. COSSH assessments and safety data sheets. Monitoring of water discharge & of-site watercourses. Design of water treatment (allowing flocculant sufficient time to settle before water enters polishing ponds) Designated Flocculation points. NRW consent to discharge permit. 	LOW	Anionic Flocculant is not considered harmful to the environment when used correctly in the designated way	Risk of the escape of flocculant into external watercourse is considered low.
Transport of Flocculant in IBC resulting in spillage.	<ul style="list-style-type: none"> River beds Surface water Animal habitats Groundwaters Recreations waters 	External watercourse close to site boundary. Internal Watercourses routed to Water treatment area and attenuation ponds.	<ul style="list-style-type: none"> Transport of flocculant to be done in suitable IBC. Regular inspection of IBC connectors/valves. Only trained and competent operators allowed to transport and use flocculant. Transport of flocculant only to designated areas. Flocculant must not be transported past last designated point or left near external water course. Minimise storage of IBC's near flocculant points. Provision of spill kits in designated areas. Emergency plan and spill clean training. Internal cut off ditches. Volume of water in attenuation ponds to dilute spillages. Penstock valves between attenuation and polishing ponds. 	LOW	Anionic Flocculant is not considered harmful to the environment when used correctly in the designated way	Risk of the escape of flocculant into external watercourse is considered low.
Overflooding MSW watercourses	<ul style="list-style-type: none"> River beds Public sewers Animal habitats Groundwaters Recreations waters 	Internal Watercourse leading to water treatment area.	<ul style="list-style-type: none"> Consistent mixing methods - mechanical mixing with worm feed at recommended concentration. Training for mixing, dosing levels and drop testing. Correspondence with recommended suppliers ensuring the right flocculant is used. Design of MSW watercourse offering sufficient distance from discharge point & external watercourse to deal with overflooding incidents. Penstock valves used between attenuation pond and final polishing ponds. Discharge sampling and monitoring and off-site water sampling. Volume of water in attenuation ponds to dilute any issues. Regular attendance and monitoring by pumpsmen. 	LOW	Anionic Flocculant is not considered harmful to the environment when used correctly in the designated way	Risk of the escape of flocculant into external watercourse is considered low.
Use of Cationic Flocculant	<ul style="list-style-type: none"> River beds Public sewers Animal habitats Groundwaters Recreations waters 	Internal Watercourse via water treatment area.	<ul style="list-style-type: none"> Consistent mixing methods - mechanical mixing with worm feed at recommended concentration or purchase ready mixed. Training for dosing levels and drop testing. Correspondence with recommended suppliers ensuring the right flocculant is used at the recommended level. Use in conjunction with Anionic flocculant if recommended by suppliers Design of MSW watercourse offering sufficient distance from external watercourse to contain potential incidents. regular discharge sampling and monitoring. Volume of water in attenuation ponds to dilute any issues and penstock valves located on attenuation ponds. Cationic Flocculant must only be used if absolutely necessary, in accordance with the manufacturers guidelines (e.g. for colloidal run-off). Emergency plan & spill training. 	LOW	Cationic Flocculant is considered hazardous to aquatic life if used incorrectly	Risk of the escape of cationic flocculant into external watercourse is considered low.