

# FlowSolve 213 Dispersant

## Product Information

### Applications

FlowSolve 213 is a medium molecular weight polymeric dispersant formulated in a high flash point aromatic solvent.

FlowSolve 213 is a high performance oil soluble dispersant for oil industry applications. This product is particularly effective in preventing or mitigating problems associated with asphaltene instability and fouling. FlowSolve 213 can be utilised for crude oil asphaltene stabilisation, high temperature refinery antifoulants, fuel oil stabilisers and other specialised dispersant applications.

FlowSolve 213 is normally applied by continuous injection. Typical treat rates range from 10 to 500 ppm dependant on the oil type and the severity of asphaltene deposition or fouling tendency. Laboratory testing and plant trials should be conducted for individual oils to establish an optimum treatment regime.

### Features

- High performance dispersancy properties, particularly effective for asphaltene instability and fouling
- Broad spectrum performance across a wide range of oils, both crude and refined products
- Low viscosity, low pour point and non - shear sensitive liquid
- No chlorine, sulphur, nitrogen, phosphorus or heavy metals
- High temperature stability (>300 C) for refinery process applications
- Suitable for formulation, blending or dilution to meet specific technical/operational requirements
- Compatible with other commonly used additives for multi-functional packages
- Long shelf life under recommended storage conditions
- Highly cost effective

### Physical Properties

Appearance	Visual	Clear, brown liquid
Polymer Content	wt%	55
Density @ 15 C	g/cm3	0.938
Viscosity @ 40 C	cSt	217
Viscosity @ 20 C	cSt	531
Pour Point	C	-33
Flash Point PMCC	C	62

These data are typical values and should not be considered as specifications.

### Other Information

FlowSolve 213 is a member of a product range of dispersant additive technologies. It is recommended that FlowSolve 210 and FlowSolve 212 should also be evaluated in asphaltene dispersant or antifoulant programmes.

JD Horizons maintains Safety Data Sheets (SDS) for all FlowSolve® products. The SDS contains pertinent information required to protect employees and customers against any known health or safety hazards associated with FlowSolve® products. Always consult the relevant SDS before handling the product in the laboratory or in commercial scale operations.

For additional information not covered by this product bulletin contact JD Horizons directly or your local representative.

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## Additional Physical Property Data

Temperature/Viscosity Profile –

Temperature (C )	Viscosity (cP)
40	197
30	303
20	501
10	867
0	1,691

These data are typical values and should not be considered as specifications.

## Environmental Data

This is a preparation and information is estimated based on component data and that of similar products.

Toxicity	Marine Invertebrate / Acartia Tonsa	EC 50 (48 hours)	187 mg/l
	Marine Alga / Skeletonema Costatum	EC 50 (72 hours)	> 1,000 mg/l
	Juvenile Turbot / Scophthalmus maximus	LC 50 (96 hours)	> 187 mg/l
	Sediment Reworker / Corophium Volutator	LC 50 (10 days)	> 11,978 mg/kg
Biodegradation	OECD 306	Polymer	2 %
		Solvent	52.9 %
Bioaccumulation	OECD 117	Polymer	Log Po/w < 3.0
		Solvent	Log Po/w 3.6 - 5.2

## Transport, Packaging and Storage

Transport	See Safety Data Sheet for detailed information.
Packaging	Bulk road tankers/ISO tanks (approx. 20 mt capacity)
	1,000 litre Schutz type IBC and standard 205 litre steel drums
Storage	Store in a dry, well ventilated area, preferably a covered warehouse facility
	Ensure drum and bulk container seals remain intact until ready for use
	Nitrogen blanket recommended for bulk storage facilities
	Recommended storage temperature range from 10 to 30 C
Shelf Life	24 months

Additional information regarding transport, storage and handling is included in the FlowSolve 213 SDS.

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