

## MAGELLAN PIPELINE ADDITIVE SPECIFICATIONS

Magellan will permit the types and concentrations of additives detailed below; all other types and concentrations or additives are prohibited.

Additive products containing Dodecenyl Succinic Anhydride or Dodecenyl Succinic Acid (DDSA) will not be reviewed for approval and are strictly prohibited.

### Gasoline Additive Specifications

The following additive specifications apply to all grades except aviation products, LPG's, and Natural Gasoline, for the grades noted in each section.

(H, I, J8, L, Q, and W Grade)

#### Gum Inhibitors and Metal Deactivators

Gasoline shipments may, but are not required to, contain any of the following gum inhibitors and/or metal deactivators:

N, N'di-secondary butyl ortho-phenylenediamine  
N, N'di-secondary butyl para-phenylenediamine  
N, N'disalicylidene-1,2 propanediamine  
N, N'di(1-ethyl-3-methylpentyl)-para-phenylenediamine  
N, N'di-isopropyl-para-phenylenediamine  
N, n'bis-(1, 4-demethylpentyl)-p-phenylenediamine n-Butyl -  
para-aminophenol  
2-6-di-tert-butylphenol  
2,4,6-tri-tert-butylphenol  
Ortho-tert-butylphenol

UOP 12P	UOP 12S	UOP 17P
UOP 3455	UOP 5S	Innospec AO-31
Innospec AO-36	Innospec AO-37	Ethyl 733
Ethanox 4776	Ethanox 4720	Ethanox 4740
Tolad 3905	Tolad 3910	Specaid 8Q202
Nalco 88BU-118	Unichem 7529	Pitt-Consol M-56
Tolad 4695		Specaid 8Q206

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**Gasoline, Fuel Oil, and Diesel Fuel Additives**

Corrosion Inhibitors

Products requiring compliance with NACE standard TM0172 may contain any of the following corrosion inhibitors:

Nalco 5403	Nalco EC5626A	Baypros 853
Nalco Visco 3554	Nalco 5405	UOP Unicor PL
Apollo PRI-19	Lubrizol 541	Unichem 7504
UOP Unicor	Innospec DCI-4A	Tolad 249
Innospec DCI-6A	UOP Unicor J	Unichem 7501
HiTech 580	Hitec E-534	Tolad 9715
Nalco EC5407A	Tolad 4410	Tolad 9719
	Spec-Aid 8Q5127	Spec-Aid 8Q110ULS

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**Fuel Oil and Diesel Fuel Additives**

Stability

Fuel oil and/or diesel fuel shipments may contain one or more of the following stability additives as required to achieve compliance with the stability characteristics outlined in the applicable grade specification.

Innospec FOA-3	Chemtec 7220	Specaid 8Q72
UOP Polyflo-121	Spec-Aid 8Q403ULS	Nalco 5303
UOP Polyflo-122	Tolad 9076	Nalco 5301
UOP Polyflo-128	Unichem 7530	UOP Polyflo-195
Tolad 9022	Spec-Aid 8Q401	

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### **Cold Flow Additives**

Fuel oil and/or diesel fuel shipments requiring additives to achieve compliance with low temperature properties may, but are not required to contain one or more of the following pour point depressant additives:

Hitec 4541	Innospec PDD-7450	Tolad 3005
Innospec 2152	Spec-Aid 8Q5201	Tolad 3030
Betz Q5201	Paradyne 25	Betz 8Q12
Hitec 4518	Unichem 8094	Hitec 4566
Exxon ECA 7305	Nalco 5375	Spec-Aid 8Q14ULS
UOP Polyflo 6000	Spec-Aid 8Q72ULS	BakerHughes T3034

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### **Dyes**

X5 Grade High Sulfur Fuel Oil is the only product in Magellan Pipeline that requires dye at the origin. Applicable dyes and required treat rates are listed in the X5 grade product specifications.

XR Grade Low Sulfur Fuel Oil is dyed at the Magellan rack.

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