



# Corrosion inhibition

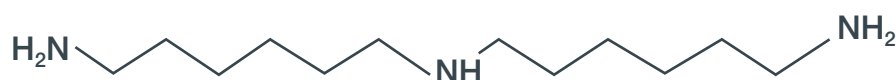
APPLICATION PROFILE



Ascend Performance Materials' specialty amines FlexaTram™ -BHM, FlexaTram™-DAM and Hexatran™ can be used as-is in vapor corrosion inhibitors or reacted with a fatty acid to create a film-forming corrosion inhibitor. These inhibitors prevent corrosion from chloride and hydrogen sulfide.

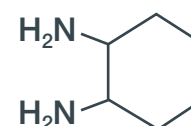
## FLEXATRAM-BHM

Bis(hexamethylene)-triamine



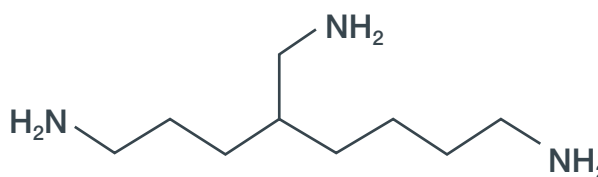
## FLEXATRAM-DAM

1,2-diaminocyclohexane



## HEXATRAN

Triaminononane



VCI and FFCI form a barrier film on most ferrous surfaces, such as siderite and ferrous or iron carbonate, to prevent chloride, CO<sub>2</sub> and H<sub>2</sub>S corrosion.



### Oil field brines

	FlexaTram and Hexatran derivatives	Metals	Typical dosage
Oil field brines	Quaternaries (VCIs)	Fe	10-25 ppm
	Amides imidazolines (FFCIs)	Fe	10-25 ppm
Boilers, crackers and refineries	Phosphonates (VCIs)	Fe, Zn, Cu	10-25 ppm
	Amides imidazolines (FFCIs)	Fe	10-100 ppm
	Nitrates and carbonates (VCIs)	Fe	10-100 ppm
	FlexaTram-DAM and imidazolines (VCIs)	Fe	10-100 ppm
	FlexaTram-NNP (ethoxylated)	Fe	10-50 ppm

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