

FORMULATED AMINES



FlexaTram BHM

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FlexaTram[™]-BHM is a multifunctional, unique blend of bis-(hexamethylene) triamine (BHMT) for the oil and gas, mining, paper, asphalt and coatings industries. Available in five specially-formulated grades, FlexaTram-BHM is designed to enhance performance and production.

	FlexaTram- BHM-120	FlexaTram- BHM-150	FlexaTram- BHM-170	FlexaTram- BHM-220	FlexaTram- BHM-300	
CHARACTERISTICS						
Purity (amines %)	95 min					
Form	solid	solid	solid	liquid	solid	
Color	brown	brown	beige to brown	brown	brown	
Water content (%)	5 max					
PROPERTIES						
Amine value range (mg KOH/g)	500 – 800	500 – 800	500 – 800	550 – 850	550 – 850	
Amine hydrogen equivalent weight (AHEW, ±3)	37	38	38	34	36	
Freeze point range (°C)	22 – 24	25 – 30	22 – 24	13 – 15	13 – 15	
Viscosity (cp ±5)	40 @ 30°C	30 @ 45°C	30 @ 45°C	24 @ 25°C	21 @ 25°C	
Metal content (ppm)	n/a	0-700	0-160	n/a	n/a	
Purity (BHM%)	45 min	45 min	45 min	42 min	42 min	

FUNCTIONALITY

	Туре	Purpose	Comments		
BHM-120	General purpose BHMT	Phosphate and phosphonate acids for calcium and ferrous	Effective at high pH 6-8		
BHM-150	Low metals BHMT	carbonate Phosphate and phosphonates	CaCO ₃ - calcium carbonate (calcite) CaSO ₄ - calcium sulfate, usually in the form of gypsum		
BHM-170	Ultra low metals BHMT	Potassium salt for calcium sulfate inhibition	0a304 - Calcium sunate, usually in the form of gypsum		
BHM-220	Liquid form of BHMT	Effective against Ca/Mg carbonate and Ba/Sr sulfate	Effective at low pH 1-2		
BHM-300	High amine content, low odor	Effective against Ca/Mg carbonate and Ba/Sr sulfate	High calcium ion tolerance at wide pH and temperature as high as 120°C BaSO ₄ - barium (barite)		
		SrSO ₄ - strontium sulfates (celestite)			



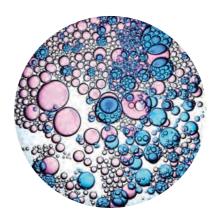
Oil and Gas: Scale inhibitor

From the pipeline to the refinery, FlexaTram-BHM provides excellent protection from a variety of common scales, including calcium carbonate (CaCO $_3$), calcium sulfate (CaSO $_4$), barium (BaSO $_4$) and strontium sulfates (SrSO $_4$).



Oil and Gas: Corrosion inhibitor

FlexaTram-BHM provides excellent corrosion inhibition properties in vapor corrosion inhibitors (VCI) and film-forming corrosion inhibitors (FFCI).



Oil and Gas: Water clarifier

FlexaTram-BHM is used to produce wide range of ethoxylated amines and ethoxylated fatty amines with various amounts of ethylene oxide. These amines are used for emulsification, surface tension, solubility and cationic strength characteristics in oil and gas and most industrial and institutional cleaning applications.

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OIL AND GAS						
Corrosion inhibitor & gas treatment	•		•			
Scale inhibitors						
Clay stabilizer & drilling mud						
Chelating agent						
Lubricant & surfactant	•				•	
Water clarifier			•			



Asphalt: Anti-strip additive

FlexTram-BHM reduces surface tension causing increased adhesion of the binder to the aggregate. The specially formulated liquid grades provide ease of use and can be metered or pumped using a gear or displacement pump.



Paper

FlexaTram-BHM is used to produce wet strength resins for the paper industry to enhance the mechanical strength of paper after the paper is soaked in water. FlexaTram-BHM is reacted with bifunctional carboxylic acid condensation to produce linear or cross-linked polyamidoamine.



Mining

FlexaTram-BHM acts as an ore flotation cationic collector in the mining industry. FlexaTram-BHM is used for the flotation of silica (quartz) from iron ores and phosphate ores in the processing of low-grade hematite and magnetite ores. Typical FlexaTram-BHM collector levels are used in the range of 0.25 to 0.50 pounds per ton (lb/t).

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ASPHALT						
Anti-strip						
Cationic emulsifying agent						
PAPER Flocculating agent						
Wet strength resin						
MINING Ore-flotation cationic collector						

About Ascend

Ascend Performance Materials is a global leader in the production of high-quality plastics, chemicals, and fibers. As the world's largest fully integrated manufacturer of nylon 6,6 resin, our manufacturing processes are vertically integrated, ensuring the highest level of quality and economies of scale. Ascend's specialty chemicals and blends of acids, amines and esters are used in a variety of applications and industries. We offer customized solutions through formulated products and superior technical support.

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