



APS-105

Pipeline Cleaner

Description:

APS-105 is a highly concentrated liquid blend of biodegradable surfactants and dispersants formulated to assist in cleaning the internal area of oil and gas pipelines as well as interconnected surface handling equipment (e.g. separators, filter separators). APS-105 is non-corrosive and will not attack metal surfaces. APS-105 is formulated to aggressively disperse oil coated solids such as: sand, iron sulfide, black powder and other solids in pipelines and handling equipment. The APS-105 works by first dispersing solids and then coating the solids with a surfactant layer which prevents redeposition in the line. Residual APS-105 remaining in the line post-cleaning will continue to function as a cleaning mechanism helping to remove solids along with condensate water removed in separators. APS-105 is not a viscosity builder.

Physical Properties:

Appearance	Clear Amber Liquid
Odor	Slight
Specific Gravity	0.95 @ 60° F (15.6° C)
Density	7.9 lbs./gal.
Flash Point	> 150° F (60° C)
pH	8.0 to 9.0
Solubility	Water Soluble Oil Dispersible

Application Data:

Typically, APS-105 is pre-diluted with a carrier solvent (diesel or solvent), or water (fresh or seawater). The product will readily disperse in either carrier, in water it will appear as a white / opaque mixture. Once diluted, the APS-105 plus carrier solvent is pumped into the pipeline followed by one or more cleaning pigs. It is generally recommended cleaning pig travel velocity be equal to or greater than 3 feet per second to effectively disperse and remove contaminating solids.

Natural Gas Pipe Line Application:

First dilute APS-105 with carrier solvent to a 10 to 15% concentration. A rule of thumb guide would be to estimate total carrier solvent volume per batch to be about 150 gallons per diameter inch of pipeline. This volume is typically sufficient to travel sections as long as 50 to 70 miles. Actual pipeline conditions may alter these estimates. If the gas pipeline is known or



believed to contain a high amount of dry black powder solids, a larger volume of carrier solvent plus cleaner may be needed. Following the initial cleaning pill volume, it may be required that additional cleaner / solvent batches be applied. The quality of the effluent from cleaning pig runs will allow on-site operators to evaluate the effectiveness of applications. The increase in mechanical action created by subsequent pig runs, will aid in the dispersing and cleaning of line solids. At the pig receiver, the APS-105 / carrier solvent blend should be separated to a holding tank for proper secondary treatment and disposal.

Shipping and Handling:

The APS-105 is an industrial chemical and should be handled only by those individuals who have read and are familiar with the precautions provided for in this product's Material Safety Data Sheet (MSDS). The product is shipped in DOT approved 55-gallon drums, Intermediate Bulk Containers (IBC's) or in bulk truck transport.

PIPELINE CLEANER