

Distillation Section: Nufarm DNBP as a Polymerization Retarder

DNBP (2,4-dinitro-6-sec butyl phenol) is the most commonly used polymerisation control additive in the distillation of styrene monomer. It is used similarly in divinylbenzene. Used on its own it is an effective and reliable retarder that has been proven over many years use, it can be used in all plant designs and at all temperatures found in the distillation sections.

DNBP can be used as a direct replacement for 2,4-dinitrophenol (DNP), 2,4-dinitro-o-cresol (DNOC) and 2,4-dinitro-p-cresol (DNPC). These other nitrophenols are solids with very low solubility in styrene or ethylbenzene requiring manual handling of the material on location. DNBP is a low melting point solid (35°C) and is very soluble in ethylbenzene enabling it to be pumped from a container to bulk store tank with no manual handling required.

- Most widely used polymer control additive in styrene production.
- A retarder that gives long lasting protection even under abnormal conditions which can occur in plant outages such as pump failure, vacuum failure etc
- Nufarm has a proprietary process that reduces residual free acid to extremely low levels

Nufarm DNBP can also be used in combination with Nufarm stable free radical products for improved performance at reduced cost (see **AHM 700 Series**)

Nufarm registered DNBP under the European REACH regulations in November 2010 and will continue to support this useful and important product.

Nufarm DNBP is available in several different formulations. We are always ready to evaluate new mixtures to suit specific customer plants.

DNBP technical, molten solid (H507A, 100006540)

50% DNBP in Ethylbenzene (H509A, 210000413)

70% DNBP in Ethylbenzene (H510A, 100006542)

75% DNBP in Ethylbenzene (H513A, 100006544)

All Nufarm *DNBP* is produced at our own site in the UK and is quality controlled before leaving site. It is available in 1000L intermediate bulk containers (IBC) and in isotanks.

We aim for the highest quality at all times and in all areas; from production, through QC and shipping, to technical service.