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# TECHNICAL DATA SHEET

**HXA UV-944** 

Ultraviolet light stabilizer for plastics and rubber

#### 1. General

HXA UV-944 is a low-dust, polymeric hindered amine light stabilizer (HALS) who provides superb light stability to many polymers and, in addition, gives long-term heat stability to polymers by radical trapping mechanism similar to that of hinder phenol. HXA UV-944's effectiveness combined with its low volatility and low extractability makes itself the most widely used HALS commercially available.

#### 2. Properties

Structure :

CAS Name : N,N'-bis(2,2,6,6-Tetramethyl-4-piperidinyl)-1,6-hexanediamine, polymer with

2,4,6-trichloro-1,3,5-triazine and 2,4,4- trimethyl-1,2-pentanamine

CAS No. : 70624-18-9 Molecular Weight : 2,000 – 3,300

3. Physical Data

Appearance : White to off-white powder

Odor : Faint

Softening range : 100 - 135 °C

Specific gravity : 1.15 @20 °C

Vapor pressure : < 0.01 Pa @20 °C

## 4. Solubility

(g in 100 ml solvent)

 Acetone
 :
 >50

 Dichloromethane
 :
 >60

 Hexane
 :
 40

 Methanol
 :
 3

 Styrene
 :
 >50

 Acetic acid ethylester
 :
 >50

 Water
 :
 Nil

## 5. Specification

Appearance : Off-white to light yellow low dust granule

Molecular weight : 2000-3300
Softening point : 105 - 135 °C
Volatiles : 1.0% max.
Ash : 0.1% max.

Transmittance : 90% min @425 nm

93% min @450 nm

# 6. Application

HXA UV-944 is suitable for those applications which demand particularly high stability for such polymers as PP, HDPE, LDPE, ABS and PVC. It is FDA-cleared for use in food packaging applications including PP and PE with maximum concentration of 0.3%.

In contrast to UV absorbers, HXA UV-944 effectiveness is independent of the polymer's thickness. For this reason, HXA UV-944 is particularly effective in articles with high specific surface such as coating, fiber, films and tapes.

A percentage of 0.2% - 0.5% of HXA UV-944 is recommended for the purpose of light protection. If desired, it can be incorporated in monomer before polymerization, often with improvement of resin quality. Light stability of polymer can be further enhanced by use of UV absorbers or certain antioxidants.

#### 7. Storage

Must be stored in closed containers in dark dry conditions.

# 8. Packaging

40 kg net/fiber drum -

### 9. HS Code

2933 6960