

ANTISTATIC-GMS 90



Introduction

GMS 90 is an excellent antistatic agent for polyolefins that provides several beneficial side effects (e. g. lubrication and mold release) and has wide food contact approvals. Antistatic agents make the surface or the material itself slightly conductive, either by being conductive itself, or by absorbing moisture from the air; thereby eliminate buildup of static electricity. The molecules of an antistatic agent often have both hydrophilic and hydrophobic areas, similar to those of a surfactant; the hydrophobic side interacts with the surface of the material, while the hydrophilic side interacts with the air moisture and binds the water molecule. HMS 90 works as an internal antistatic agents which can be mixed directly into the material during extrusion process. HMS 90 is considered to be a migrating antistatic agent, which offers cost-effective protection for short to medium term use which is what is required during the injection moulding, extrusion of sheets or fibres.

In addition HMS 90 has excellent lubricating properties making them ideal lubricants which can be used during the extrusion and molding process.

Applications

1. HMS 90 is used in the manufacturing of polypropylene resin to provide a slip/lubricant effect, in addition to the anti static effect.
2. HMS 90 is an internal antistatic agent used in injection moulding on a world-wide basis with wide food contact approvals and beneficial side effects.
3. HMS 90 used as lubricants in polyvinylchloride and have been observed to produce some enhanced heat stability.

Benefits

- 1 HMS 90 is compatible with anionic, cationic and non-ionic surfactants and has exceptional electrolyte tolerance.
- 2 HMS 90 has excellent lubricating properties making them ideal lubricants which can be used during the extrusion and molding process.
- 3 HMS 90 reduces the friction during the extrusion process, giving a uniform cell size distribution.



Specifications

Test	Specification	Test Method
Purity	95% min	By AAS
Moisture content	0.3% max	Oven drying at 105 Deg C
Color of solution (at 90 Degrees C)	200 Apha max	APHA standards for liquids
Iodine Value (mg KOH/g)	3.0 max	By Titration
Free acid (as stearic acid)	2.5% max	By Titration
Free glycerol	1.2% max	By Titration
Melting Range	60.0-70.0 Deg C	Melting point apparatus (open capillary tube)
Heavy metal- Lead (Pb)	5 ppm max	By AAS
Heavy metal- Arsenic (As)	1 ppm max	By AAS

Product FDA Status

GMS 90 is approved for use in food contact polymer as per the following chapter headings.

Title		21 - Food And Drugs
Chapter	I - Food And Drug Administration, Department Of Health And Human Services (Continued)	
Sub Chapter	B - Food For Human Consumption (Continued)	
Part	184 -Direct Food Substances Affirmed As Generally Recognized As Safe	
Sub Part	B - Listing Of Specific Substances Affirmed As Gras	
Section	184.1324 - Glyceryl Monostearate.	



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