

A: Product identification and description

Tixotropic watery dispersion of stabilised and microencapsulated red-phosphorus (50%)

Red-phosphorus CAS : 7723-14-0; EINECS: 2317687

Masteret 80450 is a halogen free flame retardant additive based on red-phosphorus particularly suitable for fire proofing organic polymers articles intended for high demanding applications.

Masteret 80450 is in liquid physical form (tixotropic watery dispersion) which makes it easy to handle, accurately to pump and homogeneously to disperse in final liquid preparations of flame retardant additives.

B: Physical properties

Appearance:	viscous liquid
Colour:	Dark red
Odor:	Light
Density (23°C):	1,4-1,6 (g/ cc)
Dynamic Viscosity (25°C):	2-8 (Pa.sec)
Solubility:	Red phosphorus is practically insoluble in water and in common organic solvents
PH:	6,5-7,5
Solid content:	49 - 51 (%)

C: Toxicology

Oral toxicity LD₅₀ (rat):> 15000 mg/kg (referred to red phosphorus)

D: Transport

Not regulated for the transportation

E: Applications

Masteret 80450 is the ideal partner additive for flame proofing organic polymer articles.

It is used for preparing complex mixtures of additives in liquid form suitable for:

the impregnation or the back-coating of carpets, threads, mesh sheets;

direct addition to water dispersion of natural or synthetic rubbers, latexes, adhesives.

In both form of applications, Masteret 80450 is generally used at the concentration ranges from 5% to 15% based on the weight of final polymer articles and it is combined with metal hydroxides (MDH, ATH), melamine derivatives, phosphoric esters and intumescent agents.

F: Processing

Masteret 80450 can be directly added to the watery dispersions of polymers and additives: the non-ionic suspension agents have been developed for achieving good homogeneity and dispersibility of red-phosphorus without interacting with the common dispersant agents for organic polymers used in same range of PH.

Always stir the product before the use.

For further detailed processing recommendations our Customer Service will gladly assist you.

G: Packaging

The preparation is available in 1000 lt palletised plastic IBC. Different packages are available on customer request.

H: Storage and handling

The preparation is stable (with regard to the separation of red phosphorus) at least 5 months if maintained in the original containers stored under ordinary conditions; after this time please contact our Customer service before using it.

Extended storage or the exposure of containers under inappropriate conditions could initiate premature separation of red phosphorus making it difficult to redisperse.

Normal precautions to a good industrial hygiene and safe working place are, generally, sufficient in handling the preparation, however all operators are kindly requested to handle, use and dispose all wastes of the preparation in accordance with the information reported on MSDS.

The information provided is based on our present knowledge and given as guidance for product use. The loading reported should be only regarded as guidance, however experimental check is needed on the polymer used and the flame retardancy class desired. The data reported do not constitute a guarantee. Quality of product is guaranteed under Italmatch Chemicals General Conditions of Sale. Existing property rights, if any, must be observed.

MASTERET — Red Phosphorus based Flame Retardants