ACTICIDE® MKT 1
Product Information

ACTICIDE® MKT 1 is a synergistic, water-based biocide specifically developed for the protection of surface coatings, paints and similar products from dry film fungal and algal growth. **ACTICIDE® MKT 1** incorporates novel Thor AMME™ technology to give significantly improved resistance of the actives to alkaline pH, UV, temperature and leaching, thus providing long term stability and efficacy.

Chemical and Physical Characteristics

Composition:	Fungicidal/algicidal combination based on AMME™ 2-Octyl-2-H-isothiazol-3-one (OIT) and AMME™ Terbutryn
Appearance:	Off-white dispersion
Odour:	Characteristic
pH (20°C):	6.0 – 8.0
Total Solids (145°C):	24.0 – 34.0%
Solubility:	Dispersible in water
Stability in application*:	Improved UV, temperature and alkaline stability, and reduced leaching

Note: *These characteristics do not constitute a sales specification*

Biocidal Properties

ACTICIDE® MKT 1 has a broad spectrum of anti-fungal and anti-algal activity including the following organisms:

Test Organisms		
Moulds	**Yeasts**	**Algae**
Alternaria alternata	*Candida albicans*	*Chlorella emersonii*
Aspergillus niger	*Rhodotorula rubra*	*Gloeocapsa sp.*
Aspergillus versicolor	*Saccharomyces cerevisiae*	*Nostoc commune*
Aureobasidium pullulans		*Pleurococcus sp.*
Cladosporium cladosporoides		*Scenedesmus vacuolatus*
Penicillium funiculosum		*Stichococcus bacillaris*
Penicillium purpurogenum		*Stigeoclonium tenue*
Phoma violacea		*Trentepohlia aurea*
Ulocladium atrum		*Trentepohlia odorata*

Applications / Use Levels

ACTICIDE® MKT 1 incorporates novel Thor AMME™ technology to give improved resistance to alkaline pH, UV, temperature and leaching. **ACTICIDE® MKT 1** is recommended for the protection of coatings, plasters and similar products from fungal and algal growth. It does not contain organic solvents and is therefore suitable for the production of low VOC formulations. For protection of water-based products from bacterial and fungal infection in the wet state the additional use of one of **Thor's** wide range of in-can preservatives is recommended.

Optimum use concentrations will depend on the required properties of the coating and the environment in which it is to be exposed. Normal addition levels are in the range 0.20 – 2.00%. The local **Thor Microbiological Technical Centre** can assist in determining the precise concentration required for specific applications.

Method of Use / Compatibility

ACTICIDE® MKT 1 should be added at the end of the production cycle. During and after addition of **ACTICIDE® MKT 1** shearing should be kept as low as possible in order to maintain the product's protective properties.

ACTICIDE® MKT 1 exhibits no compatibility problems in most practical applications. However, due to the large range of possible applications, it is recommended that the stability of the active ingredients, system compatibility and any influences on the product properties during production, storage, transport and in the application are tested prior to use. The use of oxidising, reducing agents and nucleophiles which may adversely affect active ingredient stability should be avoided. Care should be taken to ensure that temperature, pH and redox potential at the point of addition are suitable for stability of the product. Products sensitive to discolouration should be adequately tested for colour stability.

It is generally recommended to routinely test for changes in chemical and physical properties such as discolouration (colour stability), viscosity and odour, for each individual matrix system, as well as the effects of external factors such as pH, moisture, temperature and UV light.

Prior to use, **ACTICIDE® MKT 1** must not be diluted or mixed with other raw materials to avoid negative impact on the active agent. Please contact our **Thor Microbiological Technical Centre** for further information.

Packaging / Storage / Regulatory Approvals

Packaging:	Plastic drums: 25 kg / 200 kg; IBC: 1000 kg
Availability:	Ex stock in the above packaging
Shelf Life:	18 months from the date of production
Storage:	Store only in the original container. Keep container tightly sealed. Minimum storage temperature: 5°C. Protect from heat and direct sunlight. ***Protect from frost.*** Prevent release to the environment by adequate secondary containment and use of appropriate spill control.
Regulatory Approvals:	Detailed information available on the regulatory status document.

Safety / Labelling / Toxicology

Due to the listing of terbutryn as a so-called priority substance**, applications which are expected to have increased exposure to natural water systems will have to be evaluated separately. An important example is the leaching of horizontal surfaces from areas with a high surface area exposed to extreme and direct precipitation with direct discharge to natural water. For detailed information on the toxicology and handling of **ACTICIDE® MKT 1** and advice on the labelling of products in which it may be used, please refer to the separate Safety Data Sheet or seek specific advice from **Thor**.

* The data given are time and system dependant.
** See European Water Framework Directive 2000/60/EG

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General changes of the document in 2014 are included in the new revision.