

Technical Data Sheet

Clariant In-can Biocides



Exactly your chemistry.

Nipacide SP.

Chemical name: 2-Pyridinethiol-1-oxide, Na salt. (Sodium Pyrithione)

Description;

Nipacide SP is water based low toxicity biocide, developed for fungal protection in the wet state (in-can) of water based products. Nipacide SP is effective against a wide range of microorganisms including gram positive and gram negative bacteria, but particularly active against yeast and fungi. Microorganisms grow at a rapid rate and without use of the correct biocide, numbers can increase dramatically.

Example of the numbers of bacteria able to grow in products if left unpreserved

- Time = 0 mins 1
- Time = 40 mins 4
- Time = 3 hrs 1024
- Time = 5 hrs 16,384
- Time = 7 hrs 1,048,576
- Time = 10 hrs 107,000,000,000

Time = 24 hrs
236,000,000,000,000,000,000,000

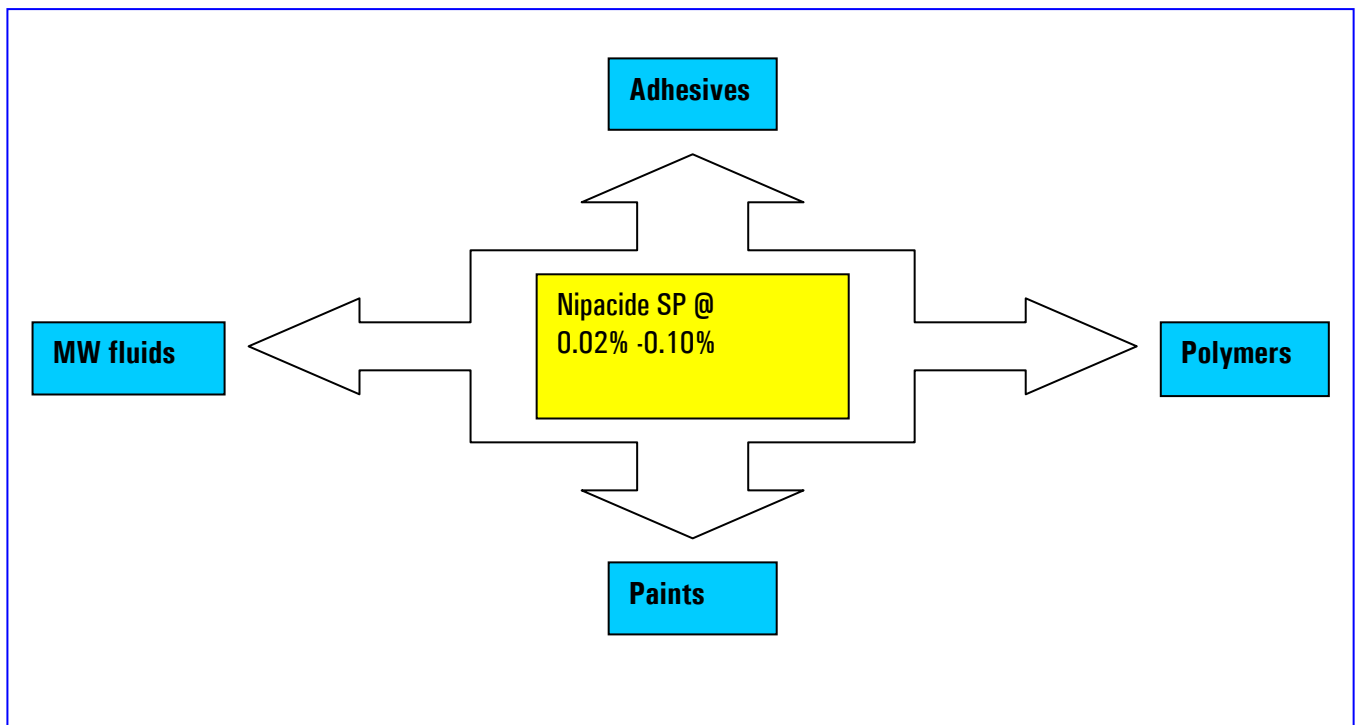
In-Can degradation in paints, polymer and adhesives as a result of bacterial and fungal contamination, can result in:

- Loss of viscosity
- Gassing
- Discoloration
- Bad odors
- Fungal growth on product surface
- Product splitting
- Loss of adhesion
- Production clean down and production down time
- **Loss of profit**

Applications;

Nipacide SP is recommended for preservation of a wide range of applications including water based adhesives, polymer emulsions; water based decorative paints, metal working fluids and construction chemicals. When products are prone to fungal contamination, Nipacide SP should be considered. Nipacide SP should also be considered for Metal Working concentrates or as a post treatment for contaminated fluids. Nipacide SP is effective against a wide range of spoilage organisms effective over a wide range.

Nipacide SP. Concentrations to be evaluated



Use level;

Nipacide SP should be evaluated in finished products at levels between 0.02% and 0.10%. For use in metal working concentrates Nipacide SP concentrations should be sufficient to give an in use dilution of 0.02-0.05%. As a post treatment, Nipacide SP should be evaluated at levels between 0.05-0.1%.

Microbiological data;

Nipacide SP has a broad spectrum of activity which is demonstrated by the following MIC data.

MIC Levels	Organism	MIC (ppm)
	Bacteria	
	<i>Pseudomonas aeruginosa</i>	500
	<i>Pseudomonas putida</i>	500
	<i>Proteus vulgaris</i>	500
	<i>Escherichia coli</i>	10
	<i>Staphylococcus aureus</i>	< 10
	Fungi	
	<i>Aspergillus niger</i>	2
	<i>Penicillium mineoluteum</i>	2
	<i>Fusarium solani</i>	50
	<i>Geotrichum candidum</i>	50
	Yeast	
	<i>Candida albicans</i>	4



Chemical compatibility;

Nipacide SP is compatible with most raw materials used in the manufacture of industrial products. Nipacide SP compatibility should always be checked and evaluated before use.

Clariant Technical Service;

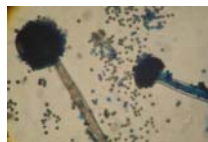
Clariant technical service is available to assist customers in the determination of the optimum use level of biocide required to fully protect their product. A dedicated team of microbiologists are on hand at all times to assist customers with technical enquiries relating to product protection. Full microbiological efficacy testing is available.

AVAILABLE MICROBIOLOGICAL TESTING

- **In can challenge.**
- **Dry film**
- **Chemical analysis**
- **Identification**
- **Disinfectant testing**
- **Microbiological audits**

Regulations and approvals;

WGK Classification 3: strongly water polluting



All information is given in good faith but without warranty. Customers should ensure that their use of the products comply with specific regulations in the relevant market