

DOWICIDE™ 4 ANTIMICROBIAL

GENERAL

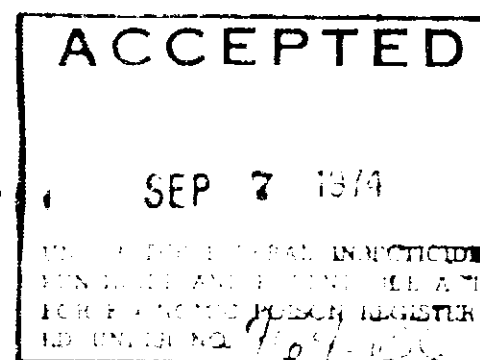
DOWICIDE 4 (N-2,4,6-trichloro-1-phenylphenol) is a Dow designation for a 2,4,6-trichloro-1-phenylphenol. A technical grade. This antimicrobial combines low odor with satisfactory phenol coefficient. It is used for manufacturing economical household, commercial, and institutional disinfectant formulations.

PHYSICAL PROPERTIES

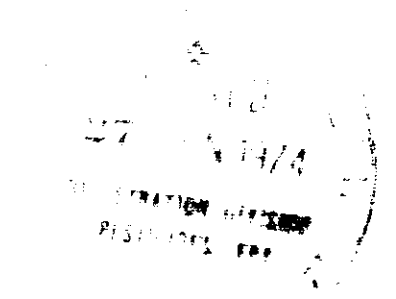
These are laboratory or literature data typical of the product and are not to be considered as, or confused with, specifications.

Structure

OH



Formula	$C_{12}H_7Cl_3O$	Flash point, F. C.C.	345
Molecular weight	291.6	Fire point, F. C.C.	490
Freezing point, C	74	Specific gravity, 25-25°C	1.3
Boiling point, C	322	Bulk density, lb./ft. ³	31.10



PHYSICAL PROPERTIES continued

Solubility, approx g/100 g solvent at 25°C		Isopropanol	270
Acetone	350	Mineral oil, light	2
DOWANOL™ (PM) fixed ether	230	Mineral oil, heavy	1
DOWANOL™ (PM) fixed ether	210	Propanol	70
Ethanol, 95% (F 50)	140	Polypropylene	130
Methylene chloride	100	Propylene glycol	100
Ethyl acetate	100	Water	0.02
		50°C	0.02

SALES SPECIFICATIONS

Description	White flakes with a clean, acetone odor
Active ingredient (4-chloro-1-phenylphenol)	88.0%
Inert ingredients	12.0%

Methods of analyses for these items may be obtained from The Dow Chemical Company, Designed Products Department, 2040 Dow Center, Midland, Michigan 48640.

EPA Registration No. 464-156

PACKAGES

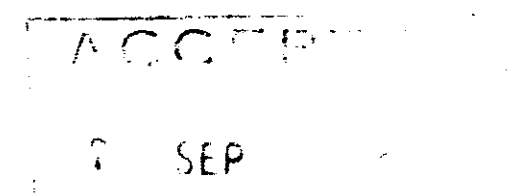
DOWICIDE 4 Antimicrobial is sold in fiber drums having a net weight of 100 lb.

ANTIFUNGAL EFFICIENCIES

<i>Rhizopus nigricans</i>	0.035-0.05
<i>Rhizoctonia solani</i>	0.001-0.002
<i>Chaetomium globosum</i>	0.005-0.0075
<i>Polyporus tulipinus</i> (F.P.L. No. 515)	0.005-0.01
<i>Trichoptera interdictata</i>	0.002-0.0075
<i>Trichophyton roseorum</i>	0.005-0.01

PHENOL COEFFICIENTS

<i>Staphylococcus aureus</i>	125
<i>Streptococcus aureus</i>	100
<i>Pseudomonas aeruginosa</i>	10



HEALTH HAZARDS, PRECAUTIONS FOR SAFE HANDLING, FIRST AID MEASURES

The following statements are necessarily general in nature and the circumstances associated with the customer's use of the product are unknown and beyond Dow's control. Suggestions regarding the hazards likely to be encountered in specific operations will be made upon request whenever possible. Address inquiries to The Dow Chemical Company, Designed Products Department, 2040 Dow Center, Midland, Michigan 48640.

Health Hazards

DOWICIDE 4 Antimicrobial is irritating to the eyes. The product is not toxic to aquatic invertebrate to seven fishes and welling of the gills was observed in fish. Injury to the gills may occur would be slight. Skin contact with the product would not present a problem. Prolonged skin contact may cause some minor skin irritation. It is not absorbed through the skin in a toxic amount; nor is it likely to cause skin sensitization. Inhalation of dusts of the product may cause irritation to nasal passages and the throat.

Precautions for Safe Handling

Chemical workers' goggles or their equivalent should be worn when DOWICIDE 4 Antimicrobial is handled.

Protective clothing should be worn when skin contact is anticipated. Work clothes should be changed at regular intervals and when gross contamination occurs. Grossly contaminated clothing, shoes, and gloves should not be reused until they have been cleaned thoroughly.

Any exposure to obviously dusty atmospheres will require the use of a dust respirator approved by the U.S. Bureau of Mines for use with toxic dusts.

First Aid Measures

Eye contact: Contaminated eyes should be flushed promptly and thoroughly with copious amounts of water for at least 15 minutes. Medical attention should be obtained.

Skin contact: Contaminated skin should be washed with soap and plenty of water. Any irritation which develops should receive medical attention.

Inhalation: Persons experiencing any ill effects from breathing the dusts of the product should be removed to fresh air. Medical attention should be obtained.

FURTHER INFORMATION

Further information concerning DOWICIDE 4 Antimicrobial can be obtained by writing The Dow Chemical Company, Designed Products Department, 2040 Dow Center, Midland, Michigan 48640, or your Dow sales representative.

