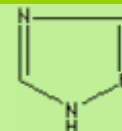


# 1,2,4-TRIAZOLE

## PRODUCT IDENTIFICATION

CAS NO.	288-88-0
EINECS NO.	206-022-9
FORMULA	C <sub>2</sub> H <sub>3</sub> N <sub>3</sub>
MOL WT.	69.06
H.S. CODE	2933.99
TOXICITY	LD50 orl-rat 1000-2000 mg/kg
SYNONYMS	Pyrodiazole; 1H-1,2,4-Triazole; s-Triazole;
DERIVATION	



## CLASSIFICATION

## PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	solid in various forms with characteristic odour.
MELTING POINT	120 - 121 C
BOILING POINT	260 C (Decomposes)
SPECIFIC GRAVITY	
SOLUBILITY IN WATER	125 g/100 ml at 20 C
pH	8 (10 g/l, H <sub>2</sub> O, 20 °C)
AUTOIGNITION	490 C
pKa	4.27 ( at 20 C)
log P	1.78 (Octanol-water)
VAPOR PRESSURE	0.603 (mmHg at 25 C)
<a href="#">HENRY'S LAW</a>	1.53E-06 (atm-m <sup>3</sup> /mole at 25 C)
<a href="#">OH RATE</a>	1.00E-13 at 25 C (Atmospheric)
NFPA RATINGS	
REFRACTIVE INDEX	
FLASH POINT	170 C
STABILITY	Stable under ordinary conditions

## GENERAL DESCRIPTION & EXTERNAL LINKS

Triazole is one of a class of organic heterocyclic compounds containing a five-membered diunsaturated ring structure composed of three nitrogen atoms and two carbon atoms at nonadjacent positions. The simplest member of the Triazole family is triazole itself, white to pale yellow crystalline solids with a weak characteristic odor; soluble in water and alcohol, melts at 120 C, boils at 260 C. Triazole and its derivatives are used for biological activities such as antiviral, antibacterial, antifungal and antituberculous. 1,2,4-Triazole is used as an intermediate for phytosanitary, pharmaceutical, medicine and pesticide products, photoconductor, and copying systems

Preparation of a nicotinamide nucleoside analog via enzymatic ribosidation of 1,2,4-triazole, Annulating agents for construction of bicyclic 1,2,4-triazole systems, Efficient synthesis of 3-hydroxymethyl-4-phenyl-1,2,4-triazole, Synthesis of selectively C-3 and N-4 substituted [1,2,4]-triazoles, Attempted ring addition to 3,5-dimethyl-1,2,4-triazole, Anions of 1-substituted-1,2,4-triazoles as nucleophiles, Annulation onto 1,2,4-triazole via a Michael-type reaction, Bicyclic ring systems from appropriately substituted triazoles, Solvent and counterion effects on the NMR of disubstituted

AN EASY AND DIRECT METHOD FOR THE SYNTHESIS OF 1,2,4-TRIAZOLE DERIVATIVES THROUGH CARBOXYLIC ACIDS AND HYDRAZINOPHTHALAZINE

SALES SPECIFICATION

APPEARANCE            White to Yellowish Crystal

CONTENT                95.0% min

MELTING POINT       117 C min

TRANSPORTATION

PACKING                40kgs in Bag

HAZARD CLASS

UN NO.

OTHER INFORMATION

European Hazard Symbols: XN C, Risk Phrases: 22-36-63, Safety Phrases: 36/37

EXAMPLES OF AZOLE FUNGICIDE