121001
SHAUGHNESSEY NO.

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REVIEW NO.

EEB BRANCH REVIEW

DATE: IN 3/24/82 OUT 3/26/82

FILE OR REG. NO. 7969-LA

PETITION OR EXP.

DATE OF SUBMISSION February 23, 1982

DATE RECEIVED BY HED March 22, 1982

RD REQUESTED COMPLETION DATE July 20, 1982

EEB ESTIMATED COMPLETION DATE

RD ACTION CODE/TYPE OF REVIEW 125/New Chemical-Nonfood/Nonfeed Use

TYPE PRODUCT(S): I, D, H, F, N, R, S Herbicide

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. R. Taylor (25)

PRODUCT NAME(S) Poast Manufacturers Concentrate

COMPANY NAME BASF Wyandotte Corporation

SUBMISSION PURPOSE Proposed Registration of Formulating Use

SHAUGHNESSEY NO.	CHEMICAL & FORMULATION	% A.I.
121001	2-[1-(ethoxyimino)butyl-5-[2-(ethylthio) propyl]-3-hydroxy-2-cyclohexen-1-one	50

Poast®

100. Pesticide Label Information

100.1 Pesticide Use

A liquid concentrate for formulating Poast® herbicides.

100.2 Formulation Information

Active Ingredient:

2-[1-(ethoxylmino)butyl]-5-[2-ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one	50.0%
Inert	50.0%
	100.0%

100.3 Application Methods, Direction, Rates

N/A

100.4 Target Organism(s)

N/A

100.5 Precautionary Labeling

ENVIRONMENTAL HAZARDS

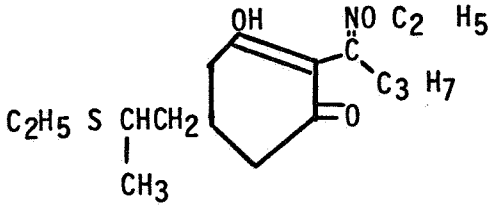
Do not apply directly to lakes, ponds, or streams
Do not contaminate water by cleaning of equipment or disposal of wastes.

101. Physical and Chemical Properties

101.1 Chemical Name

2-[1-(ethoxylmino)butyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one

101.2 Structural Formula



101.3 Common Name

N/A

101.4 Trade Name

Poast® Herbicide
BAS 9052 H
NP 55

101.5-101.7 Molecular Weight, Physical State, Solubility

Not Provided

102. Behavior in the Environment

102.1 Soil

"Aerobic Soil Metabolism"

"The herbicide degrades fairly rapidly in soil; some leaching was shown to occur."

102.2 Water

"Hydrolysis"

"NP-55 is fairly stable to hydrolysis with a half-life of about 47 days (for both 5 and 20 ppm) under environmental-like conditions of pH 6 and 25°C."

"Octanol/Water Partition Coefficient"

"Using carbon-14-labeled NP-55 and LSC analysis the partition coefficient was 21 to 27. Under similar treatment the value for DDT was about 850."

102.3 Plant

"Rotational Crop Studies"

"The residues found in the edible portions of the rotational crops were fairly low, even though aging was for only 1 and 2 months. Four and 12 month aging periods are still being studied."

"The edible parts of radishes and wheat contained low amounts of residues after growing in treated soil aged 120 days. This study satisfies the data requirement for an EUP, but for full registration a longer aging period that would show no detectable residues would be required."

102.4 Animal

No information provided.

102.5 Microorganisms

"Photolysis"

"This is not a data requirement for an EUP, so it will only be briefly reviewed:

A 5 ppm aqueous solution of NP-55 was irradiated with a mercury lamp under anerobic and aerobic conditions. The half-life of NP-55 was about 23 and 38 minutes under these conditions, respectively. The major photo products were deethoxylated compound series such as M1-O and M1-SO. Exposure to sunlight gave a half-life of 5.8 hours and the major products were M1-S and M1-O."

Also, see section 102.1 for aerobic soil metabolism.

103. Toxicological Properties

103.1 References from Toxicology Branch

Species	Test	Results
Rat	Acute oral LD_{50}	2,676-3,125 mg/lg
Mouse	Acute Oral LD_{50}	5,600-6,500 mg/lg
Rabbit	Acute Oral LD_{50}	4,600 mg/lg

103.2 Minimum Requirements

103.2.1 Avian Acute Oral LD_{50}

Species	Test	Results	Category
Mallard Duck	Acute Oral LD_{50}	>2,000 mg/kg	Core

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103.2.2 Avian Dietary LC_{50}

Species	Test	Results	Category
Mallard Duck	8-day dietary LC_{50}	>5,000 ppm	Core
Bobwhite Quail	8-day dietary LC_{50}	>5,000 ppm	Core

103.2.3 Fish Acute LC_{50}'s

Species	Test	Results	Category
Bluegill Sunfish	LC_{50} (96-hours)	265.0 mg/l	Core
Rainbow Trout	LC_{50} (96-hours)	170.0 mg/l	Core

103.2.4 Aquatic Invertebrate LC_{50}

Species	Test	Results	Category
Daphnia magna	LC_{50} (48-hours)	78.1 mg/l	Core

104. Hazard Assessment

The six basic studies have been submitted and found acceptable for registration of a formulating use only product. These studies indicted only minimal toxicity, and the use should result in very minimal exposure.

107. Conclusions

EEB has completed an incremental risk assessment (3(c)(7) Finding) of the proposed conditional registation of Poast® for formulating use only. Based upon the available data EEB concludes that the proposed use provides no exposure or risks to non-target organisms.

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