UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

APR 1 1994

MEMORANDUM

SUBJECT Picloram Triisopropanolamine (TIPA) Salt Reregistration. List A Chemical No. 005102; Case No. 0096. DowElanco: Response to The Picloram, Salts and Ester Product Chemistry Data Requirements Regarding the Solubility (GLN No. 63-8) of Picloram (TIPA) Salt. (MRID No. 430278-01; CBRS # 12957; DP BARCODE: D197439)

FROM: Freshteh Toghrol, Ph.D., Chemist
Reregistration Section II
Chemistry Branch II: Reregistration Support
Health Effects Division (7509C)

THRU: William J. Hazel, Ph.D., Section Head
Reregistration Section II
Chemistry Branch II: Reregistration Support
Health Effects Division (7509C)

TO: Lois Rossi/W. Waldrop, PM 71
Reregistration Branch
Special Review and Reregistration Division (7508W)

DowElanco has submitted product chemistry data (430278-01) on the solubility of Picloram triisopropanolamine (TIPA) TGAI to support reregistration of picloram TIPA products.

The solubility of Picloram Triisopropanolamine salt (TIPA) TGAI was determined in **organic solvents** (methanol, acetonitrile, acetone, and hexane). The test substance used for this study was Picloram TIPA TGAI, Batch No. TSN100212, with a 91.3% purity. The Picloram TIPA used as an analytical standard was Lot No. AGR221371, with a 99.4% purity. The solubility in each solvent was determined using the shake-flask methodology, which involves adding excess picloram TIPA to each solvent and allowing it to equilibrate for 24, 48, and 72 hours at 30 °C with agitation. Then samples from each of the

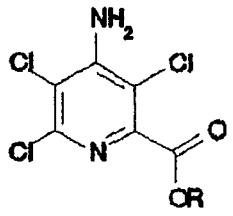
three time intervals were allowed to equilibrate for 24 hours at 20 °C with agitation for 23 hours followed by one hour without agitation. The samples were removed and analyzed using reversed-phase HPLC and an external standard.

Solvents	**Solubility (at 20 °C; g/100 ml)**
Water	**Not reported**
Acetone	**6.95**
Methanol	**56.8**
Acetonitrile	**1.40**
Hexane	**<10 ppm**

CBRS Conclusions Regarding the Picloram Triisopropanolamine Salt (TIPA) TGAI:

The data regarding solubility (GLN No. 63-8) for picloram TIPA TGAI salt is incomplete. Data for solubility in water are required.

PICLORAM (TRIISOPROPANOLAMINE, ISOOCTYL ESTER, AND POTASSIUM SALT)



R = $NH[CH_2CH(OH)CH_3]_3$; Shaughnessy No. 005102.
R = C_8H_{17}; Shaughnessy No. 005103
R = H; Shaughanessy No. 005101.
R = K; Shaughnessy No. 005104.

cc: Picloram S.F., R.F., F. Toghrol, Reg. Std. File, Circ.
RDI: W. Hazel (3/30/94): M. Metzger (3/31/94): E. Zager (3/31/94)
H7509C:CBRS:F.Toghrol:F.T.:RM:804B:CM#2:(703)305-7887:8/27/93.

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