ORGANIC · RESEARCH

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WHITE - File: PINK - Requester GREEN - Group Man

GENERAL PHYSICAL CHEMISTRY
GROUP WORK REQUEST

DATE: 11/7/66

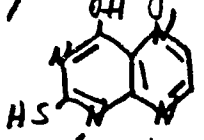
CHARGE - Job No.:

REQUESTER: Sullivan

LOCATION:

WORK REQUESTED OR ANALYSIS REQUIRED

Purity of 4-Hydroxy-2-mercaptopteridine



Try reacting with HMDS as well as running "as is" in a solvent (See Comments Section)

REASON:

Pteridines are copper corrosion inhibitors. (See attached sheet)

COMMENTS (e.g. Accuracy requirements, timing situation)

Limited solubility in NMP. May be more soluble in alcohols or pyridine.

SAMPLE INDENTIFICATION (notebook page numbers, lot numbers, dates, or other information that will be unequivocal indefintely.)

Aldrich H-3440, 4-Hydroxy-2-mercaptopteridine
Isolated Oil 55666
NMP Rx Conc 55668
Known



SPECIAL INFORMATION (Data that will facilitate our work such as known solvents for molecular weight samples, melting point if properties in solid and liquid state are needed, maximum process temperature for thermal stability samples, boiling points for gas chromatography, chemical reaction involved, etc.)

Unstable ____, Explosive ____, Toxic ____, Stench ____, sublimes ____, Hygroscopic ____, Use dry box ____

M. P. ____, B.P. ____ mm, Solvents ____

Other ____

Pteridine subl. 125-130°C at 20 mm, so this is even higher boiling

DSW 298133

O-627

STLCOPCB4068044

This side to filled in by general physical chemistry group

REPORT OF RESULTS

DATE 1-23-67

TO:

CC:

No Positive Results.

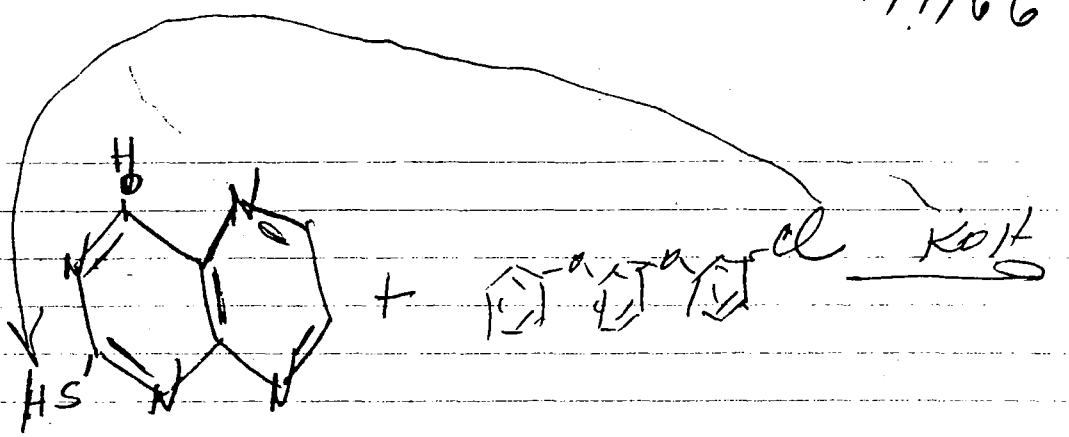
DSW 298134

C. Gosser

SIGNATURE

STLCOPCB4068045

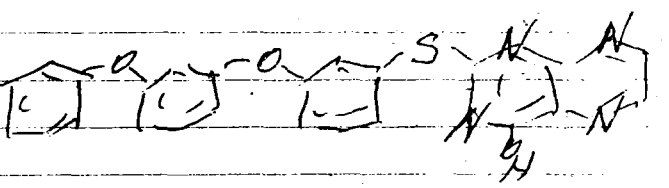
11/7/66



4-Hydroxy-2-mercaptoteridine

Boiling Point - ? 300°C

Thermal Stability - ?



Copper corrosion inhibitor

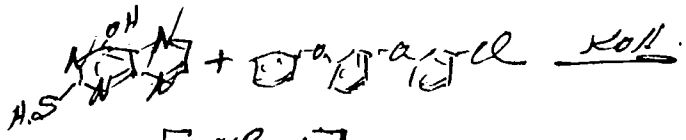
600

Limited solubility in NMP.

Try reacting with HMDS - Dubby wants to know if it will react so he can separate product from reactants

DSW 298135

STLCOPCB4068046



[NMP 200-24 hr, Filtration]

- Solids KSR Salt
  - [600 cc NMP 5x Cl-Ethic 2½ day-205]
    - [Conc]
      - Rx Conc 55668
      - NMP
- Filtrate
  - [H_2O Ether Ext]
    - Ether Layer
      - [Evap]
        - Isolated Oil 55666
    - Aq Lug

$$(CH_3)_3Si-\overset{H}{N}-Si(CH_3)_3 + ROH \xrightarrow{TMCS,\ HCl}$$

$$2\,(CH_3)_3SiOR + NH_4Cl\downarrow$$

DSW 298136

STLCOPCB4068047