

## Propham; CASRN 122-42-9

Human health assessment information on a chemical substance is included in the IRIS database only after a comprehensive review of toxicity data, as outlined in the [IRIS assessment development process](#). Sections I (Health Hazard Assessments for Noncarcinogenic Effects) and II (Carcinogenicity Assessment for Lifetime Exposure) present the conclusions that were reached during the assessment development process. Supporting information and explanations of the methods used to derive the values given in IRIS are provided in the [guidance documents located on the IRIS website](#).

### STATUS OF DATA FOR Propham

**File First On-Line 09/30/1987**

Category (section)	Assessment Available?	Last Revised
<b>Oral RfD (I.A.)</b>	yes	09/30/1987
<b>Inhalation RfC (I.B.)</b>	not evaluated	
<b>Carcinogenicity Assessment (II.)</b>	not evaluated	

## I. Chronic Health Hazard Assessments for Noncarcinogenic Effects

### I.A. Reference Dose for Chronic Oral Exposure (RfD)

Substance Name — Propham

CASRN — 122-42-9

Last Revised — 09/30/1987

The oral Reference Dose (RfD) is based on the assumption that thresholds exist for certain toxic effects such as cellular necrosis. It is expressed in units of mg/kg-day. In general, the RfD is an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. Please refer to the Background Document for an elaboration of these concepts. RfDs can also be derived for the noncarcinogenic health effects of substances that are also carcinogens. Therefore, it is essential to refer to other sources of

information concerning the carcinogenicity of this substance. If the U.S. EPA has evaluated this substance for potential human carcinogenicity, a summary of that evaluation will be contained in Section II of this file.

### I.A.1. Oral RfD Summary

Critical Effect	Experimental Doses*	UF	MF	RfD
<b>Increase in male spleen weight and ChE depression in females</b>	NOEL: 1000 ppm diet (50 mg/kg/day)	3000	1	2E-2 mg/kg/day
<b>90-Day Rat Feeding Study</b>	LEL: 2000 ppm diet (100 mg/kg/day)			
<b>PPG Industries, 1979</b>				

\*Conversion Factors -- 1 ppm = 0.05 mg/kg/day (assumed rat food consumption)

### I.A.2. Principal and Supporting Studies (Oral RfD)

PPG Industries, Inc. 1979. Accession No. 250614, 250615. Available from EPA. Write to FOI, EPA, Washington, DC 20460.

Sprague-Dawley rats (a minimum of 20/sex/dose) were fed 0, 250, 1000, and 2000 ppm of protham in their diets for 90 consecutive days. The animals were observed daily for behavioral changes and signs of toxicity. At 45 days, there was ChE depression in female rats at 100 mg/kg/day. In male rats, at 100 mg/kg/day, an increase in spleen weight occurred.

### I.A.3. Uncertainty and Modifying Factors (Oral RfD)

UF — An uncertainty factor of 1000 was used to account for the inter- and intraspecies differences and a subchronic to chronic exposure extrapolation. An additional UF of 3 was used to account for the fact that the database lacks important toxicity data (a study in a second mammalian species and a reproduction study).

MF — None

#### **I.A.4. Additional Studies/Comments (Oral RfD)**

Data Considered for Establishing the RfD:

1) 90-Day Feeding - rat: Principal study - see previous description; core grade minimum

Data Gap(s): Chronic Feeding Rat Study; Chronic Feeding Dog Study; Rat Reproduction Study; Rat Teratology Study; Rabbit Teratology

#### **I.A.5. Confidence in the Oral RfD**

Study — Low  
Database — Low  
RfD — Low

The principal study was of low quality and is given a low confidence rating. The supporting database is incomplete and is given a low confidence rating. Low confidence in the RfD follows.

#### **I.A.6. EPA Documentation and Review of the Oral RfD**

Source Document — This assessment is not presented in any existing U.S. EPA document.

Other EPA Documentation — Pesticide Registration Files

Agency Work Group Review — 09/02/1986, 03/18/1987

Verification Date — 03/18/1987

Screening-Level Literature Review Findings — A screening-level review conducted by an EPA contractor of the more recent toxicology literature pertinent to the RfD for Protham conducted in September 2002 did not identify any critical new studies. IRIS users who know of important new studies may provide that information to the IRIS Hotline at [hotline.iris@epa.gov](mailto:hotline.iris@epa.gov) or (202)566-1676.

#### **I.A.7. EPA Contacts (Oral RfD)**

Please contact the IRIS Hotline for all questions concerning this assessment or IRIS, in general, at (202)566-1676 (phone), (202)566-1749 (FAX) or [hotline.iris@epa.gov](mailto:hotline.iris@epa.gov) (internet address).

## **I.B. Reference Concentration for Chronic Inhalation Exposure (RfC)**

Substance Name — Propham  
CASRN — 122-42-9

Not available at this time.

---

## **II. Carcinogenicity Assessment for Lifetime Exposure**

Substance Name — Propham  
CASRN — 122-42-9

This substance/agent has not undergone a complete evaluation and determination under US EPA's IRIS program for evidence of human carcinogenic potential.

---

**III. [reserved]**

**IV. [reserved]**

**V. [reserved]**

---

## **VI. Bibliography**

Substance Name — Propham  
CASRN — 122-42-9

### **VI.A. Oral RfD References**

PPG Industries, Inc. 1979. Accession No. 250614, 250615. Available from EPA. Write to FOI, EPA, Washington DC 20460.

---

### **VI.B. Inhalation RfD References**

None

---

## VI.C. Carcinogenicity Assessment References

None

---

## VII. Revision History

Substance Name — Propham

CASRN — 122-42-9

Date	Section	Description
12/03/2002	I.A.6.	Screening-Level Literature Review Findings message has been added.

---

## VIII. Synonyms

Substance Name — Propham

CASRN — 122-42-9

Last Revised — 09/30/1987

- 122-42-9
- BAN-HOE
- BEET-KLEEN
- CARBANILIC ACID, ISOPROPYL ESTER
- CHEM-HOE
- IFC
- IFK
- INPC
- IPC
- IPPC
- ISO.PPC.
- ISOPROPIL-N-FENIL-CARBAMMATO

- ISOPROPYL CARBANILATE
- ISOPROPYL CARBANILIC ACID ESTER
- ISOPROPYL-N-FENYL-CARBAMAAT
- ISOPROPYL-N-PHENYL-CARBAMAT
- ISOPROPYL-N-PHENYLCARBAMATE
- ISOPROPYL-N-PHENYLURETHAN
- ISOPROPYL PHENYLCARBAMATE
- N-PHENYLCARBAMATE D'ISOPROPYLE
- N-PHENYLCARBAMIC ACID, ISOPROPYL ESTER
- N-PHENYL ISOPROPYL CARBAMATE
- O-ISOPROPYL N-PHENYL CARBAMATE
- ORTHO GRASS KILLER
- PHENYLCARBAMIC ACID, 1-METHYLETHYL ESTER
- PREMALOX
- PROFAM
- Propham
- PROPHAME
- TRIHERBIDE
- TRIHERBIDE-IPC
- TUBERIT
- TUBERITE
- USAF D-9
- Y 2