



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

CASWELL FILE

004451

MAY 17 1985

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM:

SUBJECT: Registration #s: 11678-1,-2,-8,-9,-14,-40: Captan,
miscellaneous toxicity data for review.

Tox. Chem. No. 159
Accession No.: 252584, 252585

TO: H. Jacoby (PM 21)
Registration Division (TS-767C)

FROM: Marion P. Copley, D.V.M. *MP Copley 5/10/85*
Section VI, Toxicology Branch
Hazard Evaluation Division (TS-769C)

THRU: Jane Harris, Ph.D., Section Head *JH 5/14/85*
Section VI, Toxicology Branch
Hazard Evaluation Division (TS-769C)
and
Theodore M. Farber, Ph.D., Branch Chief *TM Farber 5/16/85*
Toxicology Branch
Hazard Evaluation Division (TS-769C)

Makhteshim Agan (america) Inc. has submitted a mouse acute oral and rat acute intraperitoneal (I.P.) study for review. The oral study is core-guideline, and the I.P. study is acceptable.

A Registration Standard is being prepared for Captan and a Special Review is currently underway.

DATA EVALUATION REPORT

STUDY TYPE: Acute Oral - Mouse

TOX. CHEM. NO.: 159

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ACCESSION NUMBER: 252584

TEST MATERIAL: Captan

STUDY NUMBER: E.H./P., 1-1-106-83

SPONSOR: Makhteshim - Agan (America) Inc.

TESTING FACILITY: Pharmatox, Landkreis Hannover, Germany

TITLE OF REPORT: Acute Toxicological Study of Captan after
Oral Application to the Mouse

AUTHORS: S. Dickhaus, E. Heisler

REPORT ISSUED: June 1983

CONCLUSION

Toxicity Category: III

Classification: Core-guideline

Combined LD₅₀ 14 day = 2110 (1901 - 2342) mg/kg
Slope = 1.22 (1.14 - 1.31)

MATERIALS: 1. Captan, white powder, 92.7 %
2. CFI-mice, Winkelmann, Paderborn strain, 26-28 g.

METHODS: Mice were fasted for 2 hours before dosing. Test material was administered orally by gavage in 1 % methylcellulose. Animals were observed after treatment for deaths and toxic signs. The mice were weighed on days 0 and 14. Gross necropsy was performed on all animals that died on study and on all survivors which were sacrificed on day 14. Doses given and lethality are presented in the table under results.

RESULTS:

Dose	Males	Females	Combined	Body weight (g)	
mg/kg	deaths/dosed	deaths/dosed	deaths/dosed	day 0	day 14
1500	0/5	0/5	0/10	26.8	27.6
1890	1/5	1/5	2/10	26.8	25.8
2380	4/5	3/5	9/10	26.6	24.0
3000	5/5	5/5	10/10	27.0	---

Clinical signs of toxicity included writhing, increased respiration rate, convulsions, tremors and staggering (observed in all treatment groups).

Decreased body weight gain was dose related.

Most of the deaths were within 24 hr.

Gross necropsy showed: G.I. tract - hyperemia
kidneys - lighter than normal
livers - swollen

There was no mention of when clinical signs subsided.

Reviewed by: Marion . Copley, D.V.M. (TS-769C)
Section VI, Tox. Branch *MAC 5/18/85*
Secondary Reviewer: Jane Harris, Ph.D. (TS-769C)
Section VI, Tox. Branch

DATA EVALUATION REPORT

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STUDY TYPE: Acute Intraperitoneal - Rats TOX. CHEM. NO.: 159

ACCESSION NUMBER: 252585

TEST MATERIAL: Captan

STUDY NUMBER: E.H./P., 1-4-107-83

SPONSOR: Makhteshim - Agan (America) Inc.

TESTING FACILITY: Pharmatox, Landkeis Hannover, Germany

TITLE OF REPORT: Acute Toxicological Study of Captan after
Intraperitoneal Application to the Rat

AUTHORS: S. Dickhous, E. Heisler

REPORT ISSUED: August 1983

CONCLUSION

Toxicity Category: N.A.

Classification: acceptable

LD₅₀ (males) = 39.5 (35.3 - 44.2) mg/kg
Slope = 1.26 (1.18 - 1.35)
LD₅₀ (females) = 34.8 (31.1 - 39.0) mg/kg
Slope = 1.24 (1.15 - 1.34)

MATERIALS: 1. Captan, white powder, 92.7%
2. SPF, Wistar rats (strain Winkelmann, Paderborn),
mean weights were: 200 g - males, 180 g - females.

METHODS: Test material was administered to rats by intra-
peritoneal injection in 1 % methylcellulose. Animals were
observed after treatment for deaths and toxic signs. The
rats were weighed on days 0 and 14. Gross necropsy was
performed on all animals that died on study and on all survivors
which were sacrificed on day 14. Doses given and lethality
are presented in the table under results.

RESULTS:

Dose mg/kg			Males		Females	
	Males	Females	Body weight (g)		Body weight (g)	
	deaths/dosed	deaths/dosed	day 0	day 14	day 0	day 14
20	0/10	0/10	201.6	239.2	182.7	204.4
30	1/10	2/10	200.2	237.7	183.3	197.3
40	5/10	7/10	201.3	232.0	183.3	181.3
50	9/10	10/10	201.2	223.0	182.4	-----

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Clinical signs of toxicity initially included writhing (rapid onset), tonic-clonic convulsions, staggering, gasping and incoordination followed by sedation and coma. Decreased body weight gain was dose related. Reduced food and water consumption were also noted in the weekly reports for all groups. Most of the deaths were within 24 hr.

Gross necropsy showed: G.I. tract - hyperemia (acute deaths)
livers - patchy pattern and increased
organ weight (no numbers given)
at the terminal sacrifice

There was no mention of when clinical signs subsided.

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