



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

001818

23 APR 1982

Caswell No. 194AA

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

TO: Mr. Robert Taylor (25)
Registration Division (TS-767)

THRU: Orville E. Paynter, Chief
Toxicology Branch
Hazard Evaluation Division (TS-769)

SUBJECT: PP#2F2604 and 352 UNU - E.I. DuPont de Nemours & Company requests the establishment of tolerances for residues of the herbicide chlorsulfuron (Glean) (2-chloro-N[(4-methoxy-6-methyl 1-1, 3,5-triazin-2-yl)aminocarbonyl] benzenesulfonamide) in or on the following raw agricultural commodities:

barley grain	0.05 ppm
barley straw	0.5 ppm
kidney and liver of cattle, goats, hogs, horses and sheep	0.05 ppm
meat, fat and meat by-products of cattle, goats, hogs, horses and sheep	0.05 ppm
milk	0.05 ppm
oat grain	0.05 ppm
oat straw	0.5 ppm
wheat grains	0.05 ppm
wheat forage	10 ppm
wheat straw	0.5 ppm

Temporary tolerances for chlorsulfuron have been established previously on wheat and barley grain at 0.05 ppm (PP#062376). No other chlorsulfuron petitions are pending.

Recommendation:

This action request is toxicologically supported.

Formulation:

The formulation requested for use in DuPont's Glean Weed Killer. Glean contains 79.8% of technical chlorsulfuron. All inerts in the formulation are cleared under Section 180.1001.

(Technical Material)

- ✓ 1. Acute Oral LD₅₀ (Guinea Pig) = 1,363 mg/kg
Category III - Core Supplementary (animal species not preferred)
Haskell Lab.
- ✓ 2. Acute Dermal LD₅₀ (Rabbit) = 3,400 mg/kg
Category III - Core-Minimum (only two dose levels tested)
Haskell Lab.
- ✓ 3. Acute Inhalation LC₅₀ (Rat) = > 5.9 mg/Liter
Category III - Core-Minimum (only one dose level tested)
Haskell Lab.
- ✓ 4. Acute Oral LD₅₀ (Rat) = female 4113 mg/kg (lower limit)
= female 9524 mg/kg (upper limit)
= male 4723 mg/kg (lower limit)
= male 6648 mg/kg (upper limit)
Category IV - Core-Guideline - Haskell Labs.
- ✓ 5. Skin Irritation and Sensitization (Guinea Pig) = No
irritation or sensitization noted - Core-Minimum (Number of
sensitization treatments; four vs. ten) Haskell Lab.
- ✓ 6. 90-Day Feeding Study (Rat) = NOEL = 100 ppm; LEL = 500 ppm
(Slight decrease in plasma creatinine, slight increase
hematocrit) - Core-Minimum - Haskell Lab.
- ✓ 7. 6-Month Dog Feeding Study - NOEL > 2,500 ppm (highest level
tested) Core-Minimum - Haskell Lab.
- 8. 2-Year Rat Oncogenic and Feeding Study and a 3-Generation
Reproduction sub-study - Not oncogenic in this study,
NOEL = 100 ppm; Reproduction NOEL = 500 ppm - Haskell Lab.
- ✓ 9. Teratology Study (Rat) - Teratogenic NOEL = $\geq$ 2500 ppm
(highest level tested) Maternal NOEL = $\geq$ 2500 ppm;
Fetotoxic NOEL $\geq$ 2500 ppm - Core-Minimum (No maternal
toxicity) Haskell Lab.

- ✓ 10. 2-Year Mouse Oncogenic Study - No oncogenic potential was demonstrated with this test material at dosages up to 5000 ppm - Core-Minimum - Haskell Lab.
- 11. Teratology Study (Rabbit) - Teratogenic NOEL = 75 mg/kg
Fetotoxic NOEL = 25 mg/kg
Core-Minimum - Haskell Lab.
- 12. Dominant Lethal Evaluation in Rats - Study unacceptable - Haskell Labs.
- 13. Chinese Hamster Ovary Cell Mutation Assay - Study acceptable - Haskell Labs.
- 14. Chinese Hamster Ovary cell Cytogenetics Assay - Study acceptable - Haskell Labs.
- 15. Hepatocyte Primary Culture/DNA Repair Assay Using Rat Hepatocytes in Culture - Study unacceptable - Naylor Dana Institute, Valhalla, New York
- 16. Mutagenic Activity in Salmonella/Microsome Assay - Study is acceptable - Haskell Labs.

Computer printout enclosed.

Charles Frick

Mr. Charles Frick
Toxicology Branch
Hazard Evaluation Division (TS-769)

JDC 4/23/82

Attachment

File last modified 2/23/12

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ACCEPTED DAILY INTAKE DATA

EAT, older	ADI	ADI	EPI
mg/kg	mg/kg/day	mg/kg/day	mg/day (60kg)
0.000	0.000	0.000	0.000

Unpublished, Tax approved 002376

CROP	Tolerance	Food Factor	mg/day (1.5kg)
Barley (1)	0.000	0.03	0.00000
Wheat (170)	0.000	10.36	0.00000

EPI	ADI	% ADI
0.000 mg/day (60kg)	0.0000 mg/day (1.5kg)	0.00

Current Action EPI 202604

CROP	Tolerance	Food Factor	mg/day (1.5kg)
Barley (1)	0.000	0.03	0.00002
Kidney (203)	0.050	0.03	0.00002
Liver (211)	0.050	0.03	0.00002
Wheat, red (20)	0.050	10.41	0.00811
Milk & dairy products (33)	0.050	26.62	0.02146
Oats (102)	0.050	0.00	0.00027
Wheat (170)	0.050	10.36	0.00777

EPI	ADI	% ADI
0.0000 mg/day (60kg)	0.0377 mg/day (1.5kg)	1.26
