1-10-90

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

009022

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: EPA Reg. No./File Symbol 7969-IO
2,4-DP Acid tech.

FROM: William S. Woodrow WSW 1-10-90
Precautionary Review Section
Registration Support Branch E 1/10/90
Registration Division (H7505C)

TO: Jo Ann Miller / J.E.M. (PM 23)
Fungicide-Herbicide Branch
Registration Division (H7505C)

APPLICANT: BASF Corp.
Parsippany, N.J. 07054

FORMULATION FROM LABEL:

Active Ingredient(s):	% by wt.
2-(2,4-Dichlorophenoxy) Propionic Acid	95.0
Inert Ingredient(s):	5.0
Total	100.0%

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BACKGROUND

BASF Corp. submitted acute oral, acute dermal, primary eye and skin irritation, three dermal sensitization, and an acute intraperitoneal studies to support registration of "2,4-DP Acid-tech." MRID NOS. used were 409566-02 through 409566-07, 409822-01, and 409822-02.

RECOMMENDATION

1) The acute oral, acute dermal, primary eye and skin irritation, acute intraperitoneal and two of the three dermal sensitization studies are acceptable to RSB/PRS (MRID NOS. 409822-01, and 409822-02).

2) Dermal sensitization study (MRID NO. 409566-07) is not acceptable, and was designated Core Supplementary Data; it was not possible to distinguish between the effects of Freud's adjuvant and the test material on the test material sensitizing potential.

3) Dermal sensitization studies were designated Core minimum data; no positive control study was included, or referred to (studies NO. 409822-01 - 409822-02).

4) The primary eye irritation study was designated Core minimum, mainly because the study was terminated at 72 hours, at which time the av. irritation index was still increasing per examination period (89/110). The study should have been continued to an irritation free state, or to 21 days.

5) The Registrant must submit an acute inhalation study to evaluate 2,4-DP Acid technical.

LABELING

1) The label signal word must be changed from CAUTION, to read "DANGER".

2) Change the Precautionary Statements to read as follows, "Harmful or fatal if swallowed. Harmful if absorbed through skin. Causes irreversible eye damage. Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Remove contaminated clothing and wash before reuse."

3) Change Statement of Practical Treatment as follows,

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If Swallowed: Call a physician or poison control center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger.

If on Skin: Wash with plenty of soap and water. Get medical attention.

If in Eyes: Flush with plenty of water. Get medical attention.

pm NOTE: Upon submission of the requested acute inhalation toxicity study, Precautionary labeling may need revising.

4) The primary eye irritation study was designated Core minimum, mainly because the study was terminated at 72 hours, at which time the av. irritation index was still increasing per examination period (89/110). The study should have been continued to an irritation free state, or to 21 days.

5) The Registrant must submit an acute inhalation study to evaluate 2,4-DP Acid technical.

LABELING

1) The label signal word must be changed from CAUTION, to read "DANGER".

2) Change the Precautionary Statements to read as follows, "Harmful or fatal if swallowed. Harmful if absorbed through skin. Causes irreversible eye damage. Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Remove contaminated clothing and wash before re use."

3) Change Statement of Practical Treatment as follows,

DATA REVIEW FOR ACUTE DERMAL TOXICITY TESTING (§81-2) 009022

Product Manager: (23)
Reviewer: ~~[illegible]~~ Woodrow Walker
MRID No.: 409566-03
Report Date: 1-4-90
Testing Laboratory: BASF Aktiengesellschaft
Report No. 83/0118
Author(s): P. Kirsch
Species: Rat, Wistar
Sex: 5M+5F / group Wt.: M219-231, F212 g.
Test Material: 2,4-DB (Dichlorprop)
Quality Assurance (40 CFR §160.12): None

Summary:

1. LD_{50} (mg/kg): Males = ~~[illegible]~~; Females = ~~[illegible]~~; Combined = ~~[illegible]~~
2. The estimated LD_{50} is > 4000 mg/kg
3. Tox. Category: III. Classification: Guidelines

Procedure ~~(Deviations From §81-2):~~ 2 groups of 5M+5F Rabbit dermally to clipped backs (dorso-lateral parts), Sites covered = semi-occlusive dressing. 24 hour contact. Sites wiped + observed (animals) for 14 day for topic symptoms and mortality. (Test mat. moist = 0.5 g, Conc.)

Results: All animals subjected to autopsy.

Reported Mortality

DOSAGE (mg/kg)	(NUMBER KILLED/NUMBER TESTED) Males	Females	Combined
4000 mg/kg.	0/5	0/5	0/10
2000 mg/kg.	0/5	0/5	0/10

Symptomology & Gross Necropsy Findings:

No abnormal topic symptoms + no gross pathological findings.

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DATA REVIEW FOR ACUTE ORAL TOXICITY TESTING (§81-1)

Product Manager: (23)
MRID No.: 409566-02
Testing Facility: BASF Aktiengesellschaft
Author(s): P. Klisch
Species: Rat, Wistar
Age: not given
Weight: M 187-199 - F 169-186 g.
Source: Dr. K. Thomae GmbH, Biberach, FRG
Test Material: 2,4-DP (Dichlorprop)
Quality Assurance (40 CFR §160.12): None

Reviewer: ~~H. Walter~~ Woodrow
Report Date: 1-4-90
Report No. 83/0071

Observation Days (Post Exposure): (14); other ( )

Conclusion:

1. LD_{50} (mg/kg): Males = ~~approx~~ 1470 mg/kg; Females = > 825, < 1470 mg/kg; Combined = —
2. The estimated LD_{50} is > 825 < 1470 mg/kg
3. Tox. Category: III. Classification: Guidelines

Procedure ~~(Deviations from §81-1)~~: Test material mixed ± 0.5% aqueous CMC, Volume/dose (by gavage), was 10 ml/kg. 4 groups of 5M+5F each were dosed ± observed 3x/day, daily thereafter for 14 days. All animals ~~recropied~~ or autopsied at death.

Results:

Reported Mortality

DOSAGE (mg./kg)	(NUMBER KILLED/NUMBER TESTED) Males	Females	Combined
2150 mg/kg	5/5	5/5	10/10
1470 mg/kg	3/5	5/5	8/10
825 mg/kg	0/5	0/5	0/10
464 mg/kg	0/5	0/5	0/10

Symptomology & Gross Necropsy Findings:

Clinical - @ 2 highest doses, males: blood stained urine, dyspnea, apathy, abnormal position, staggering, ataxia, paresis, twitching, prostration, lacrimation; females also displayed these symptoms

Necropsy: Dead animals: ~~opened~~ congestion, pale livers, dilatation (widespread) in glandular stomachs, atonic intestines ± liquified contents mixed ± blood.

DATA REVIEW FOR SKIN IRRITATION TESTING (§81-5)

Woodrow 009033

Product Manager: (23)
MRID No.: 409566-05
Testing Laboratory: BASF Aktiengellschaft
Author(s): P. Kirsch
Species: Rabbit, White Vienna
Age: not stated
Sex: 3M+3F
Weight: not given
Dosage: 0.5g
Test Material: 2,4-D (ich(or prop) (50% aqueous formulation w/w).
Quality Assurance (40 CFR §160.12):

Reviewer: ~~M. Webber~~
Report Date: 1-10-90
Report No.: 83/0186

Summary:

The Primary Irritation Index = 2.6 (mildly irritating)

Toxicity Category: III

Classification: Guidelines

Procedure ~~(Deviations From §81-5):~~ approx. 0.5g (0.5ml aqua of 50% suspension in water) spread on 2.5cm sq patches, and applied to clipped backs of 3M+3F rabbits. (Patches containing test material applied to backs & secured. 24 hour exposure under occlusive dressing. Test material wiped off; animals observed & scored for irritation 30-60 min, 48, 72 hours, 8 days & 15 days after patch removed. Scoring according to Draize system.

Results:

Time	individual irritation scores (Av.)
24 hrs	2.8
48 hrs	2.4
72 hrs	2.5
8 days	0.9
15 days	0.0

Special Comments:

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DATA REVIEW FOR ACUTE EYE IRRITATION TESTING (§81-4)

Product Manager: (23)
MRID No.: 409566-06
Testing Laboratory: BASF Aktiengesellschaft
Author(s): P. Kirsch
Species: Rabbit, White Vienna
Sex: 2M & 4F Weight:
Source: Gaukler: Main, FRG.
Dosage: 0.1ml (approx. 58mg)
Test Material: 2,4-DP (Dichlorprop)
Quality Assurance (40 CFR §160.12):

Reviewer: ~~M. Waller~~ Woodrow
Report Date: 1-10-90
Report No. 83/0188

Summary: (should have continued to: about irrit. or to 21 days

Tox. Category: I Classification: Core Minimum

Procedure (~~Deviation From §81-4~~): 0.1ml instilled into the conjunctival sac, right eye of 2M+4F rabbits. Eyes examined and scored for irritation, apparently according to Draize @ 1, 24, 48, and 72 hours post treatment

Results:

	Observations (number "positive"/number tested)							
	Hour	Days						
	1	1	2	3	4	7	14	21
Cornea Opacity	6/6	6/6	6/6	6/6				
Iris	6/6	6/6	6/6	6/6		should have		
Conjunctivae Redness	6/6	6/6	6/6	6/6		continued - at least until		
Chemosis	6/6	6/6	6/6	6/6		irritation absent, or until		
Discharge	6/6	6/6	6/6	6/6			21	days.
median irritation index →	54	73	87	89				

2.0 scores 5, 3.0 scores @ 72 hrs

Comments: P.I. Index = 83 (of possible 110). Note that average irritation index for scoring intervals constantly increases, through 72 hrs, when assessment terminated.

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DATA REVIEW FOR SKIN SENSITIZATION TESTING (§81-6)

Product Manager: (23) Reviewer: ~~E. Waller~~ Woodrow
MRID No.: 409566-07 Report Date: 1-4-90
Testing Laboratory: BASF Aktiengesellschaft Report No. 84/0244
Author(s): P. Kirsch
Species: guinea pig
Sex: not given Weight: not given
Source: not stated
Test Material: 2,4-DP (Dichlorprop)
Positive Control Material: none
Quality Assurance (40 CFR §160.12): none

Method: Maximization test
(will conduct another dermal sen. test)

Summary:
1. This product is / is not a dermal sensitizer. not determined.
2. Classification: Supplementary

Procedure ~~(Deviation From §81-6):~~ A 50% aqueous dilution, also a 25% w/v were tested for irritation properties; the 50% concentration was minimally irritatory, and the 25% w/v. preparation was not irritation.

~~Results:~~

At a challenge concentration of 10% (in the Maximization test), both in the animals pretreated with the test substance using Freund's adjuvant and in the negative (naive) controls pretreated c Freund's, skin changes occurred - slight erythema, scab like lesions. The test groups and controls (without Freunds adjuvant) differed only in the time at which the skin changes occurred.

The results of this Maximization Test were not conclusive; it would appear that use of Freund's adjuvant reduced the irritation threshold; and therefore another dermal sensitization test was performed - to emphasize concentrations utilized.

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DATA REVIEW FOR SKIN SENSITIZATION TESTING (§81-6)

Product Manager: (23) Reviewer: Woodrow ~~Miller~~
MRID No.: 409566-07 Report Date: 1-4-90
Testing Laboratory: BASF Aktiengesellschaft Report No. 84/0244
Author(s): P. Kirsch
Species: guinea pig
Sex: not given Weight: not given
Source: not stated
Test Material: 2,4-DP (Dichlorprop)
Positive Control Material: none named
Quality Assurance (40 CFR §160.12): none

Method: Maximization test
(will conduct another dermal sen. test)

Summary:
1. This product is / is not a dermal sensitizer. not determined.
2. Classification: Supplementary

Procedure (~~Deviation From §81-6~~): A 50% aqueous dilution, also a 25% w/v were tested for irritation properties; the 50% concentration was minimally irritating, and the 25% w/v preparation was not irritation.

~~Results:~~

At a challenge concentration of 10% (in the Maximization test), both in the animals pretreated with the test substance using Freund's adjuvant and in the naive (naive) animals pretreated & Freund's, skin changes occurred - slight erythema, scab like lesions. The test group and controls (without Freunds adjuvant) differed only in the time at which the skin changes occurred.

The results of this Maximization Test were not conclusive; it would appear that use of Freund's adjuvant reduced the irritation threshold; and therefore another dermal sensitization test was performed - to emphasize concentrations utilized.

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DATA REVIEW FOR SKIN SENSITIZATION TESTING (§81-6)

Product Manager: (23) Reviewer: ~~M. Waller~~ Woodrow
MRID No.: 409822-01 Report Date: 1-5-90
Testing Laboratory: BASF Aktiengesellschaft Report No. 84/0246
Author(s): Dr. Gruwdler
Species: guinea pig, Dunkin Hartley
Sex: female Weight: 242-297g
Source: Hagemann GmbH & Co. KG
Test Material: 2,4-DP (Dichlorprop), solid ground to 0.5mm
Positive Control Material: None
Quality Assurance (40 CFR §160.12): adequate

Method: Open epicutaneous test

Summary:
1. This product is / (is not a dermal sensitizer)
2. Classification: Core minimum (No + control)

Procedure ~~(Deviation From §81-6)~~: 6 groups of guinea pigs (7/group) were employed:

Control Group 1 no application of test material
Control Group 2 no application of test material
~~Results:~~ Test Group 4 50% Test mat. in aqua dest.
Test Group 5 15% " " in aqua dest.
Test Group 6 5% " " in aqua dest.
Test Group 7 1.5% " " in aqua dest.

The groups of animals (where appropriate) were treated 5 times/week for 4 weeks (INDUCTION), using 0.025 ml / 2 cm² clipped sites - not covered after application.

CHALLENGE Two challenge applications were made; at 3 and 17 days after the last induction applications.

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DATA REVIEW FOR SKIN SENSITIZATION TESTING (§81-6)

Product Manager: (23)
Reviewer: Woodrow ~~M. Waller~~
MRID No.: 409822-01
Report Date: 1-5-90
Testing Laboratory: BASF Aktiengesellschaft
Report No. 84/0246
Author(s): Dr. Grandler
Species: guinea pig, Dunkin Hartley
Sex: female
Weight: 242-297g
Source: Hagemann GmbH & Co. KG
Test Material: 2, 4-DP (Dichlorprop), solid ground to 0.5mm
Positive Control Material: None
Quality Assurance (40 CFR §160.12): adequate

Method: Open epicutaneous test

Summary:
1. This product is / (is not a dermal sensitizer)
2. Classification: Core minimum (No + Control)

Procedure ~~(Deviation from §81-6)~~: 6 groups of guinea pigs (8/group) were employed:

Control Group 1 — no application of test material
Control Group 2 — no application of test material
~~Results:~~ Test Group 4 — 50% Test-mat. in aqua dest.
Test Group 5 — 15% " " in aqua dest.
Test Group 6 — 5% " " in aqua dest.
Test Group 7 — 1.5% " " in aqua dest.

The groups of animals (where appropriate) were treated 5 times/week for 4 weeks (INDUCTION), using 0.025 ml / 2 cm² clipped sites — not covered after application.

CHALLENGE Two challenge applications were made; at 3 and 17 days after the last induction application.

Quoted from the tester's report:

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	Induction	Concentrations of								
		1st challenge				2nd challenge				
		50% in a	15% in a	5% in a	1.5% in a	50% in a	15% in a	5% in a	1.5% in a	
Control group 1	untreated	0/8 3/8	0/8	0/8	0/8	8/8 7/8	6/8 2/8	1/8 0/8	0/8	48 h 72 h
Control group* 2	untreated	untreated				6/7 7/7	4/7	1/7	0/7	48 h 72 h
Test group 4	50% in a	7/8 8/8	5/8 7/8	1/8	0/8	7/8	7/8 5/8	1/8 0/8	0/8	43 h 72 h
Test group 5	15% in a	2/8 1/8	0/8	0/8	0/8	6/7 5/7	6/7 4/7	1/7 0/7	0/7	48 h 72 h
Test group 6	5% in a	5/8	3/8 4/8	1/8 0/8	0/8	6/8 7/8	4/8	2/8 0/8	0/8	48 h 72 h
Test group 7	1.5% in a	5/8 4/8	2/8 4/8	0/8	0/8	5/8	4/8	0/8	0/8	48 h 72 h

a: aqua dest.

x/y: number of skin changes/number of application sites in each case 48 hours after the challenge (72 hours only if there is a deviation from 48 hours)

* Death of an animal of control group 2, 15 days after the beginning of the test on account of pneumonia

** Death of an animal of test group 5, 36 days after the beginning of the test on account of pneumonia

Unquote

Conclusions: Animals induced and challenged with 50% or 15% test material showed + reactions for most of these Animals. Animals induced ≤ 5 or 1.5% T.M. & Challenged ≤ 50% or 15% T.M.; most responded positively, however when challenged ≤ 5.0% or 1.5% did not show + responses

therefore, the test material did not sensitize in the present test.

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Quoted from the tester's report:

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	Induction	Concentrations of								
		1st challenge				2nd challenge				
		50% in a	15% in a	5% in a	1.5% in a	50% in a	15% in a	5% in a	1.5% in a	
Control group 1	untreated	0/8 3/8	0/8	0/8	0/8	8/8 7/8	6/8 2/8	1/8 0/8	0/8	48 h 72 h
Control group* 2	untreated	untreated				6/7 7/7	4/7	1/7	0/7	48 h 72 h
Test group 4	50% in a	7/8 8/8	5/8 7/8	1/8	0/8	7/8	7/8 5/8	1/8 0/8	0/8	48 h 72 h
Test group 5	15% in a	2/8 1/8	0/8	0/8	0/8	6/7 5/7	6/7 4/7	1/7 0/7	0/7	48 h 72 h
Test group 6	5% in a	5/8	3/8 4/8	1/8 0/8	0/8	6/8 7/8	4/8	2/8 0/8	0/8	48 h 72 h
Test group 7	1.5% in a	5/8 4/8	2/8 4/8	0/8	0/8	5/8	4/8	0/8	0/8	48 h 72 h

a: aqua dest.

x/y: number of skin changes/number of application sites in each case 48 hours after the challenge (72 hours only if there is a deviation from 48 hours)

* Death of an animal of control group 2, 15 days after the beginning of the test on account of pneumonia

** Death of an animal of test group 5, 36 days after the beginning of the test on account of pneumonia //

Unquote

Conclusions: Animals induced and challenged with 50% or 15% test material showed + reactions for most of these Animals. Animals induced ≤ 5 or 1.5% T.M & Challenged ≤ 50% or 15% T.M.; most responded positively; however when challenged ≤ 5.0% or 1.5% did not show + response

therefore, the test material did not sensitize in the present test.

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DATA REVIEW FOR SKIN SENSITIZATION TESTING (§81-6)

Product Manager: (23)
Reviewer: ~~M. Weller~~ Woodrow
MRID No.: 409822-02
Report Date: 1-5-90
Testing Laboratory: BASF Aktiengesellschaft
Report No. 84/0245
Author(s): D. Kirsch
Species: Guinea pig, Dunkin Hartley
Weight: 244-248 g.
Source: ~~Hagemann~~ Fa. J. ... GmbH & Co. KG
Test Material: 2,4-DP (Dichlorprop), solid, ground (0.5 mm)
Positive Control Material: none
Quality Assurance (40 CFR §160.12): adequate

Method: Maximization test (Magnusson & Kligman)

Summary:
1. This product (is) / is not a dermal sensitizer. weak sensitizer
2. Classification: Core Minimum (no + control).

Procedure ~~(Dev: ... §81-6)~~ Induction

Test group - 20F; forward - first row 2 intradermal injection of 0.1 ml Freund's adjuvant, emulsified c̄ water 1:1. Middle row 2 injections each of 0.1 ml ~~Results:~~ test material. Back row 2 injections each of 0.1 ml Freund's adjuvant/water (1:1) with test substance.

Control groups 1 & 2: - 10 F given same injections as for test animals, without the test material; these animals injected in the shoulder. Readings were made 24 hours after beginning the operation.

Induction - percutaneous. The percutaneous induction was conducted 1 week following the intradermal injection. The cutaneous applications were 0.3 test material were carried on 2x4 cm paper strips. Control animals were not treated, since distilled water/oil not expected ~~...~~ to influence study results. The cutaneous applications were

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DATA REVIEW FOR SKIN SENSITIZATION TESTING (§81-6)

Product Manager: (23)
MRID No.: 409822-02
Testing Laboratory: BASF Aktiengesellschaft
Author(s): D. Kirsch
Species: Guinea pig, Dunkin Hartley
Sex: Female
Source: Hagemann GmbH & Co. KG
Test Material: 2,4-DP (Dichlorprop), solid, ~~wet~~ (0.5mm)
Positive Control Material: none
Quality Assurance (40 CFR §160.12): adequate

Reviewer: ~~M. Webber~~ Woodrow
Report Date: 1-5-90
Report No. E4/10245-

Weight: 244-298 g.

Method: Maximization test (Magnusson & Kligman)

Summary:
1. This product (is) / is not a dermal sensitizer. weak sensitizer
2. Classification: Core Minimum (no control).

Procedure (~~Deviation From §81-6~~): Induction

~~Test group 20 F;~~ Animal - ~~first row~~ 2 intradermal injection of 0.1 ml Freund's adjuvant, emulsified ~~=~~ water 1:1. ~~Middle row~~ 2 injections each of 0.1 ml ~~Results:~~ test material. ~~Back row~~ 2 injections each of 0.1 ml Freund's adjuvant/water (1:1) with test substance.

~~Control groups 1 + 2 :~~ = 10 F ~~given same injections as~~ for test animals, without the test material; these animals injected in the shoulder. Readings were made 24 hours after beginning the operation.

~~Induction~~ - percutaneous - The percutaneous induction was conducted 1 week following the intradermal injection. The cutaneous applications were 0.3. Test material were carried on 2x4 cm paper strips. Control animals were not treated, since distilled water did not injected ~~to~~ to influence study results. The cutaneous applications were

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retained using semi-occlusive dressings, effluvia for 48 hours to the shoulder area; these were same sites used for the intradermal injections. Treated sites examined and scored 48 hours after beginning application.

Challenge – The first challenge was approximately 14 days following the cutaneous application, a second challenge one week later. Substance: 0.15 g test substance on 2x2 cm filter paper. 1st challenge – to test group and 1 control group 1 with test substance formulation (a 2nd control group remained untreated).

2nd challenge – treatment of the test group and control group 1 and 2 (a naive group) with the substance formulation. Challenge applications under occlusive dressings, 24 hr contact, to undepilated flanks. Reading @ 24, 48 & 72 hours.

Results:

1) Intradermal induction – Erythema/edema only in all animals receiving Freund's adjuvant.

2) Cutaneous induction – No reaction.

3) Challenge – Table = No animals ℄ + skin reactions

	1st chal		2nd chal	
	48 hr	72 hr	48 hr.	72 hr
Control g. 1	0/10	4/10	0/10	3/10
Control g. 2	no induction		0/10	1/10
Test Group	4/19	10/19	3/19	3/19

Conclusion: Test material appears to be a weak sensitizing agent.

retained using semi-occlusive dressing, exposure for 48 hours to the shoulder area; these were same areas used for the intradermal injections. Treated sites examined and scored 48 hours after beginning application.

Challenge — The first challenge was approximately 14 days following the cutaneous application, a second challenge one week later. Substance: 0.15 g test substance on 2x2 cm filter paper.
1st challenge — to test group and of control group 1 with test substance formulation (a 2nd control group remained untreated).
2nd challenge — treatment of the test group and of control groups 1 and 2 (a naive group) with the substance formulation. Challenge applications under occlusive dressings, 24 hr contact, to intact clipped flanks. Readings @ 24, 48 & 72 hours.

Results:

1) Intradermal induction — Erythema/edema: only in all animals receiving Freund's adjuvant.
2) Cutaneous induction — No reaction.
3) Challenge — Table = No animals c̄ + skin reactions

	1st chal		2nd chal	
	48 hr	72 hr	48 hr	72 hr
Control g. 1	0/10	4/10	0/10	2/10
Control g. 2	no induction		0/10	1/10
Test Group	4/19	10/19	2/19	3/19

Conclusion: Test material appears to be a weak sensitizing agent.

Data review for acute intraperitoneal toxicity in rat

Product Manager (23) Reviewer: Woodrow
MRID NO. 409566-04 Report Date: 8-10-92
Testing Lab.: BASF Aktiengesellschaft Report NO.: [illegible]12
Author(s): P. Kirsch
Species: Rat, Wistar
Sex: M+F Weight: M 161-170; F 169-173g
Source: K. Thiemes GMBH, FRG.
Dosage: by I.P. route
Test Material: 2,4-DP (Dichlorprop) + 0.5% aqueous CMC
Quality Assurance:

Procedure: 4 groups of 5M+5F each were separately injected I.P. with 4 different doses of test material. Animals observed frequently day of dosing, daily 14 days. Animals necropsied.

Reported Mortality

Exposure Concentration (mg/kg)	NO. Killed / Nb. tested MALES	FEMALES	COMBINED
681 mg/kg	5/5	5/5	10/10
464 mg/kg	5/5	5/5	10/10
316 mg/kg	0/5	2/5	2/10
215 mg/kg	0/5	0/5	0/10

LD50 Males > 316 < 464 mg/kg
LD50 Females: approx. 316 mg/kg
LD50 M+F > 316 < 464 mg/kg
Toxicity Category (N.A.) Classification: Guidelines

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Data review for acute intraperitoneal toxicity in rats

Product Manager (23) Reviewer: Woodrow
MRID NO. 409566-04 Report Date: 1-10-90
Testing Lab.: BASF Aktiengesellschaft Report NO. 83/0121
Author(s): P. Kirsch
Species: Rat, Wistar
Sex: M+F Weight: M 161-170; F 169-173g
Source: K. Thomae GMBH, FRG.
Dosage: by I.P. route
Test Material: 2,4-DP (Dichlorprop) + 0.5% aqueous CMC
Quality Assurance:

Procedure: 4 groups of 5M+5F each were separately injected I.P. with 4 different doses of test material. Animals observed frequently day of dosing, 1x daily Tu-Sun. Animals necropsied.

Reported Mortality

Exposure Concentration (mg/kg)	No. Killed / Nb. Tested MALES	FEMALES	COMBINED
681 mg/kg	5/5	5/5	10/10
464 mg/kg	5/5	5/5	10/10
316 mg/kg	0/5	2/5	2/10
215 mg/kg	0/5	0/5	0/10

LD50 Males > 316 < 464 mg/kg
LD50 Females: approx. 316 mg/kg
LD50 M+F > 316 < 464 mg/kg
Toxicity Category (N.A.) Classification: Guidelines

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