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

OFFICE OF PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

14/AUG/2007

MEMORANDUM

Subject:	Name of Pesticide Product:	XDE-742 Technical
	EPA File Symbol:	62719-LAT
	DP Barcode:	D332131
	Decision No.:	369824, R01
	PC Code:	108702 Pyroxsulam

From: Rick J. Whiting, Biologist
Technical Review Branch (TRB)
Registration Division (7505P)

To: James Stone, RM Team 23
Herbicide Branch
Registration Division (7505P)

Applicant: Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268

FORMULATION FROM LABEL:

Active Ingredient(s):		% by wt.
108702	Pyroxsulam (XDE-742) [CAS No. 422556-08-9]	99.0%
Inert Ingredient(s):		1.0%
	Total:	100.0%

ACTION REQUESTED: The Risk Manager requests:

"Review acute toxicity data submitted to support registration of technical of new active ingredient."

BACKGROUND: The registrant, Dow AgroSciences LLC, has submitted five acute toxicity studies (MRID Nos. 46908337, 46908339, 46908343, 46908345 and 46908347) and a waiver request for the acute inhalation study (MRID No. 46908341) to support the registration of XDE-742 Technical, EPA File Symbol 62719-LAT. The registrant has also submitted Study Profile Templates (SPT) for each of the acute toxicity studies (MRID Nos. 46908538, 46908540, 46908542, 46908544 and 46908546). The acute toxicity studies were conducted at Experimental Toxicology and Ecology, BASF Aktiengesellschaft, Germany.

COMMENTS AND RECOMMENDATIONS:

1. The acute oral and dermal toxicity studies and the primary dermal irritation and dermal sensitization studies have been reviewed and classified as Acceptable.

2. All countries (US, Canada, Australia) have reviewed the registrant's waiver request for the acute inhalation study as part of the Global review process for this new AI. The waiver request is denied. The decision to deny the waiver is by consensus opinion (memos sent by D. Ramsingh dated 7-19-07 and J. O'Dea dated 7-22-07). The registrant must demonstrate that the AI contains large, attrition-resistant particles that are non-inhalable by submitting a Particle Size Analysis study.

3. The primary eye irritation study is classified as Minimally Acceptable. The eyes of the test animals were rinsed one hour after test material instillation rather than at the 24 hour time period as specified by the guideline OPPTS 870.2400. Australia commented that the laboratory used the OECD guidelines, not the OPPTS guidelines as the basis for the 1 hr rinse. Based on this information, the countries agree to the "minimally acceptable rating" and the study can be used for regulatory purposes (memos sent by D. Ramsingh dated 8-7-07 and J. O'Dea dated 7-22-07).

4. Based on the reviewed acute toxicity studies, the acute toxicity profile for XDE-742 Technical, EPA File Symbol 62719-LAT is as follows:

Acute oral toxicity	III	Acceptable	MRID 46908337, 46908538
Acute dermal toxicity	III	Acceptable	MRID 46908339, 46908540
Acute inhalation toxicity	---	Unacceptable	MRID 46908341
Primary eye irritation	IV	Min. Accep.	MRID 46908343, 46908542
Primary skin irritation	IV	Acceptable	MRID 46908345, 46908544
Dermal sensitization	Positive	Acceptable	MRID 46908347, 46908546

LABELING: A label will not be generated until the issue surrounding the acute inhalation study is addressed.

Reviewer: Rick J. Whiting **Date: AUG 14, 2007**
Risk Manager (EPA): James Stone, RM Team 23

STUDY TYPE: Acute Oral Toxicity - Rat; OPPTS 870.1100; OECD 423

TEST MATERIAL: XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; solid (powder) / white – beige)

CITATION: Gamer, A.; Leibold, E. (2003) XDE-742/BAS 770 H - Acute Oral Toxicity Study in Rats. Project Number: 10A0298/031037. Unpublished study prepared by BASF Aktiengesellschaft. 20 p. December 23, 2003. MRID No. 46908337

Brooks, K. (2005) Study Profile Template (SPT) for XDE-742/BAS 770 H: Acute Oral Toxicity in Rats. Project Number: 10A0298/SPT, 031037/SPT. Unpublished study prepared by BASF Aktiengesellschaft, Labor fuer Oekotoxicologie. 7 p. October 25, 2005. MRID No. 46908538

SPONSOR: BASF Aktiengesellschaft, 67056 Ludwigshafen/Rhein, Germany

EXECUTIVE SUMMARY: In an acute oral toxicity study (MRID 46908337 and 46908538), young adult female Wistar (HanBrl:WIST(SPF) rats (age: 8-12 weeks; weight: 166-196 g; source: RCC Ltd., Wölferstrasse 4, 4414 Füllinsdorf, Swiss) were given a single oral dose of 2000 mg/kg body weight of XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; solid (powder) / white – beige). Test material preparations in doubly distilled water (20% w/v or 20 g/100 ml) were given sequentially to 2 groups each consisting of three fasted (at least 16 hours) female rats (a total of 6 animals).

Individual bbody weights were recorded prior to test material administration (Day 0) and again on Days 7 and 14 (termination) following dosing. Animals were observed for clinical signs of toxicity and mortality several times on the day of dosing and at least once daily thereafter for 14 days after dosing. A gross necropsy examination was performed on all animals at scheduled euthanasia.

Oral LD_{50} Females $\geq$ 2000 mg/kg bw

Based on the lack of mortality at the limit dose, XDE-742/BAS 770 H (Pyroxsulam) is classified as EPA Toxicity Category III.

All animals survived and gained body weight during the study. There were no signs of clinical toxicity or abnormal behaviour. No gross internal lesions were observed in any animal at necropsy.

This acute oral study is classified as Acceptable. It does satisfy the guideline requirement for an acute oral study (OPPTS 870.1100; OECD 423) in the rat.

COMPLIANCE: Signed and dated GLP, Quality Assurance, and Data Confidentiality statements were provided.

RESULTS and DISCUSSION:

Dose (mg/kg bw)	Mortality/Number Tested		
	Males	Females	Combined
2000	N/A	0/6	N/A

Statistics: The oral LD_{50} was calculated using the limit dose.

A. Mortality: As noted in table.

B. Clinical observations: All animals survived and gained body weight during the study. There were no signs of clinical toxicity or abnormal behaviour.

C. Gross Necropsy: All animals survived and gained body weight during the study. There were no signs of clinical toxicity or abnormal behaviour. No gross internal lesions were observed in any animal at necropsy.

D. Reviewer's Conclusions: All countries agree with study author's conclusions. From page 16 of the study: "Under the conditions of this study the median lethal dose (LD_{50}) of XDE-742/BAS 770 H after oral administration was found to be greater than 2,000 mg/kg body weight in rats."

E. Deficiencies: According to OECD 423 guideline, if testing is conducted at the limit dose and no mortalities occur with the first sex (3 animals), then 3 animals of the second sex should be tested at the limit dose. Only females were tested in this study. This deviation does not significantly affect the validity of the study.

Reviewer: Rick J. Whiting **Date: AUG 14, 2007**
Risk Manager (EPA): James Stone, RM Team 23

STUDY TYPE: Acute Dermal Toxicity - Rat; OPPTS 870.1200; OECD 402

TEST MATERIAL: XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; solid (powder) / white – beige)

CITATION: Gamer, A.; Leibold, E. (2003) XDE-742/BAS 770 H - Acute Dermal Toxicity Study in Rats. Project Number: 11A0298/031036. Unpublished study prepared by BASF Aktiengesellschaft. 17 p. December 23, 2003. MRID No. 46908339

Brooks, K. (2005) Study Profile Template (SPT) for XDE-742/BAS 770 H: Acute Dermal Toxicity in Rats. Project Number: 11A0298/SPT, 031036/SPT. Unpublished study prepared by BASF Aktiengesellschaft, Labor fuer Oekotoxicologie. 7 p. October 25, 2005. MRID No. 46908540

SPONSOR: BASF Aktiengesellschaft, 67056 Ludwigshafen/Rhein, Germany

EXECUTIVE SUMMARY: In an acute dermal toxicity study (MRID 46908339 and 46908540) five young Wistar (HanBrl:WIST(SPF) rats/sex (age: 8-10 weeks males, 12-14 weeks females; weight: 245-256 g males; 213-227 g females; source: RCC Ltd., Wölferstrasse 4, CH-4414 Füllinsdorf, Swiss) were exposed to a single dermal application of XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; solid (powder) / white – beige) for 24 hours.

The test material as a 60% w/v preparation in doubly distilled water was applied to the clipped skin (dorsal and dorsolateral parts of the trunk; approximately 10% of the body surface) and covered by a semi-occlusive dressing. After 24 hours of exposure, the dressings were removed and the test sites were gently rinsed with warm water. Individual body weights were recorded shortly before application (Day 0) and again on Days 7 and 14 (termination) following dosing. Animals were observed for clinical signs of toxicity and mortality several times on the day of dosing and at least once daily thereafter for 14 days after dosing. Scoring of skin findings (Draize, 1959) occurred 30-60 minutes after removal of the semi-occlusive dressing (Day 1), and on days 7 and 14. A gross necropsy examination was performed on all animals at scheduled euthanasia.

Dermal LD_{50} Males $\geq$ 2000 mg/kg bw
Dermal LD_{50} Females $\geq$ 2000 mg/kg bw
Dermal LD_{50} Combined $\geq$ 2000 mg/kg bw

Based on the lack of mortality, XDE-742/BAS 770 H (Pyroxsulam) is classified as EPA Toxicity Category III.

All animals survived and gained body weight during the study. There were no signs of clinical toxicity, dermal irritation or abnormal behaviour. No gross internal lesions were observed in any animal at necropsy.

This acute dermal study is classified Acceptable. It does satisfy the guideline requirement for an acute dermal study (OPPTS 870.1200; OECD 402) in the rat.

COMPLIANCE: Signed and dated GLP, Quality Assurance, and Data Confidentiality statements were provided.

RESULTS and DISCUSSION:

Dose (mg/kg bw)	Mortality/Number Tested		
	Males	Females	Combined
2000	0/5	0/5	0/10

Statistics: The dermal LD_{50} was calculated using the limit dose.

A. Mortality: As noted in table.

B. Clinical observations: All animals survived and gained body weight during the study. There were no signs of clinical toxicity, dermal irritation or abnormal behaviour.

C. Gross Necropsy: No gross internal lesions were observed in any animal at necropsy.

D. Reviewer's Conclusions: All countries agree with study author's conclusions. From page 17 of the study: "Under the conditions of this study the acute dermal median lethal dose (LD_{50}) of XDE-742/BAS 770 H after dermal application was found to be greater than 2,000 mg/kg body weight in male and female rats."

E. Deficiencies: None.

Reviewer: Rick J. Whiting **Date: AUG 14, 2007**
Risk Manager (EPA): James Stone, RM Team 23

STUDY TYPE: Acute Inhalation Toxicity - Rat; OPPTS 870.1300; OECD 403

TEST MATERIAL: XDE-742 TGAI (Pyroxsulam)

CITATION: Mehta, J. (2006) Waiver Rationale for XDE-742 TGAI Acute Inhalation Study. Project Number: JM06001. Unpublished study prepared by Dow AgroSciences LLC. 12 p. July 25, 2006. MRID No. 46908341

SPONSOR: Dow AgroSciences LLC, European Development Centre, 3 Milton Park, Abingdon, OX14 4RN, United Kingdom

EXECUTIVE SUMMARY: The registrant has submitted a waiver rationale (MRID No. 46908341) for the acute inhalation study. The basis for the rationale was no risk would be as associated with inhalation exposure based on the phys-chem properties (solid, vp = 1 x 10-7 Pa); which was confirmed by data on structurally similar substances; and that the TGAI will not be used in a smoke generating, aerosol or vapour-releasing preparation. All countries (US, Canada, Australia) have reviewed the waiver request as part of the Global Review process for this new AI. The waiver request is denied by consensus opinion (memos sent by D. Ramsingh dated 7-19-07 and J. O'Dea dated 7-22-07). The registrant must demonstrate that the AI contains large, attrition-resistant particles that are non-inhalable by submitting a Particle Size Analysis study.

The study waiver argument was not accepted; therefore, a data gap exists for an acute inhalation study (OPPTS 870.1300; OECD 403) in the rat.

Reviewer: Rick J. Whiting **Date: AUG 14, 2007**
Risk Manager (EPA): James Stone, RM Team 23

STUDY TYPE: Primary Eye Irritation - Rabbit; OPPTS 870.2400; OECD 405

TEST MATERIAL: XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; pH value of 10% aqueous preparation was approximately 12; solid (powder) / white – beige)

CITATION: Kaufmann, T., Leibold, E. (2003) XDE-742/BAS 770 H - Acute Eye Irritation in Rabbits. Project Number: 11H0298/032100. Unpublished study prepared by BASF Aktiengesellschaft. 24 p. December 23, 2003. MRID No. 46908343

Brooks, K. (2005) Study Profile Template (SPT) for XDE-742/BAS 770 H: Acute Eye Irritation in Rabbits. Project Number: 11H0298/SPT, 032100/SPT. Unpublished study prepared by BASF Aktiengesellschaft, Labor fuer Oekotoxicologie. 9 p. October 25, 2005. MRID No. 46908542

SPONSOR: BASF Aktiengesellschaft, 67056 Ludwigshafen/Rhein, Germany

EXECUTIVE SUMMARY: In a primary eye irritation study (MRID 46908343 and 46908542), 0.1 ml (about 30 mg of the comminuted test substance) of XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; solid (powder) / white – beige) was instilled into the lower conjunctival sac of the right eye of three (1 male and 2 female) young healthy New Zealand White rabbits (age: 7-8 months; 3.83-4.32 kg; source: Centre Lago S.A., 01540 Vonnas, France). The left eye served as the untreated control. About 1 hour after instillation, the treated eye of the animal(s) was rinsed with 3 to 6 ml of hand warm tap water for 1 to 2 minutes using a syringe with a blunt probe. Ocular irritation was assessed at approximately 1, 24, 48 and 72 hours post-instillation.

No corneal opacity or iritis was observed during the study. Conjunctival redness was observed in all eyes at 1 hour and 24 hours (score 1) and in 1 eye at 48 hours (score 1). Chemosis was noted in one eye at 1 hour and 24 hours (score 1). All irritation was resolved by 72 hours.

All countries agree that the study can be used for regulatory purposes and that it will be classified a “minimally acceptable” because the eyes of the test animals were rinsed one hour after instillation of the test material rather than the 24 hours specified by the guideline OPPTS 870.2400. The laboratory followed OECD guideline instead of the OPPTS harmonized guidelines. In this study, XDE-742/BAS 770 H (Pyroxsulam) is minimally irritating and will be assigned EPA Toxicity Category IV.

This study is classified as Minimally Acceptable, because the eyes of the test animals were rinsed one hour after application of the test material; instead of 24 hrs as specified in the OPPTS harmonized guidelines. The study does satisfy the guideline requirement for a primary eye irritation study (OPPTS 870.2400; OECD 405) in the rabbit.

COMPLIANCE: Signed and dated GLP, Quality Assurance, and Data Confidentiality statements were provided. The test procedure deviated from the guideline requirement that test eyes not be washed out for 24 hours following instillation of the test material.

RESULTS AND DISCUSSION:

	Number "positive"/number tested			
	Hours			
Observations	1	24	48	72
Corneal Opacity	0/3	0/3	0/3	0/3
Iritis	0/3	0/3	0/3	0/3
Conjunctivae:				
Redness*	0/3	0/3	0/3	0/3
Chemosis*	0/3	0/3	0/3	0/3
Discharge*	0/3	0/3	0/3	0/3

*Score of 2 or more required to be considered "positive."

A. Observations: No corneal opacity or iritis was observed during the study. Conjunctival redness was observed in all eyes at 1 hour and 24 hours (score 1) and in 1 eye at 48 hours (score 1). Chemosis was noted in one eye at 1 hour and 24 hours (score 1). All irritation was resolved by 72 hours.

B. Reviewer's Conclusions: All countries agree that the study can be used for regulatory purposes and that it will be classified a "minimally acceptable" because the eyes of the test animals were rinsed one hour after instillation of the test material rather than the 24 hours specified by the guideline OPPTS 870.2400. The laboratory followed OECD guideline instead of the OPPTS harmonized guidelines.

C. Deficiencies: The test procedure deviated from the guideline requirement that test eyes not be washed out for 24 hours following instillation of the test material.

Reviewer: Rick J. Whiting **Date: AUG 14, 2007**
Risk Manager (EPA): James Stone, RM Team 23

STUDY TYPE: Primary Dermal Irritation - Rabbit; OPPTS 870.2500; OECD 404

TEST MATERIAL: XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; solid (powder) / white – beige)

CITATION: Kaufmann, T.; Leibold, E. (2003) XDE-742/BAS 770 H - Acute Dermal Irritation/Corrosion in Rabbits. Project Number: 18H0298/032102. Unpublished study prepared by BASF Aktiengesellschaft. 23 p. December 23, 2003. MRID No. 46908345

Brooks, K. (2005) Study Profile Template (SPT) for XDE-742/BAS 770 H: Acute Dermal Irritation/Corrosion in Rabbits. Project Number: 18H0298/SPT, 032102/SPT. Unpublished study prepared by BASF Aktiengesellschaft, Labor fuer Oekotoxicologie. 8 p. October 25, 2005. MRID No. 46908544

SPONSOR: BASF Aktiengesellschaft, 67056 Ludwigshafen/Rhein, Germany

EXECUTIVE SUMMARY: In a primary dermal irritation study (MRID 46908345 and 46908544), 0.5 g of XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; solid (powder) / white – beige) was applied to the skin of three young healthy adult New Zealand White rabbits (1 male and 2 female) (age: 6-7 months; weight: 3.84-4.17 kg; source: Centre Lago S.A., 01540 Vonnas, France). The solid test material was minimally moistened with a suitable amount of doubly-distilled water to guarantee skin contact immediately before test material application. The test material was applied in a single dose to the intact untreated skin (2.5 cm x 2.5 cm). The test patch was secured in position with a semiocclusive dressing. After 4 hours of exposure, the test material was removed with Lutrol® and Lutrol® / water (1:1). Individual dose sites were scored at 1, 24, 48 and 72 hours.

Based on the lack of dermal irritation at 72 hours, XDE-742/BAS 770 H (Pyroxsulam) is classified as EPA Toxicity Category IV.

Primary Dermal Irritation Index (PDII) = 0.25 Slight erythema (score 1) was observed in all animals immediately up to 1 hour after removal of the patch. No other dermal irritation was observed during the study. All irritation was resolved by 24 hours.

This study is classified as Acceptable. It does satisfy the guideline requirement for a primary dermal irritation study (OPPTS 870.2500; OECD 404) in the rabbit.

COMPLIANCE: Signed and dated GLP, Quality Assurance, and Data Confidentiality statements were provided.

RESULTS and DISCUSSION:

INDIVIDUAL SKIN IRRITATION SCORES

ERYTHEMA/EDEMA

Animal No.	Sex	Hours After Patch Removal				
		0	1	24	48	72
01	F	1/0	1/0	0/0	0/0	0/0
02	M	1/0	1/0	0/0	0/0	0/0
03	F	1/0	1/0	0/0	0/0	0/0

A. Observations: Slight erythema (score 1) was observed in all animals immediately up to 1 hour after removal of the patch. No other dermal irritation was observed during the study. All irritation was resolved by 24 hours.

B. Results: Primary Dermal Irritation Index (PDII) = 0.25

C. Reviewer's Conclusions: All countries agree with the study author's conclusion. From page 20 of the study: "Considering the described cutaneous reactions as well as the average score for irritation, XDE-742/BAS 770 H does not show a skin irritation potential under the test conditions chosen."

D. Deficiencies: None.

Reviewer: Rick J. Whiting **Date: AUG 14, 2007**
Risk Manager (EPA): James Stone, RM Team 23

STUDY TYPE: Dermal Sensitization - Guinea Pig; OPPTS 870.2600; OECD 406

TEST MATERIAL: XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; solid (powder) / white – beige)

CITATION: Gamer, A.; Leibold, E. (2004) XDE-742/BAS 770 H - Maximization Test in Guinea Pigs. Project Number: 30H0298/032101. Unpublished study prepared by BASF Aktiengesellschaft. 42 p. March 26, 2004. MRID No. 46908347

Brooks, K. (2005) Study Profile Template (SPT) for XDE-742/BAS 770H - Maximization Test in Guinea Pigs. Project Number: 30H0298/SPT, 032101/SPT. Unpublished study prepared by BASF Aktiengesellschaft, Labor fuer Oekotoxicologie. 10 p. December 15, 2005. MRID No. 46908546

SPONSOR: BASF Aktiengesellschaft, 67056 Ludwigshafen/Rhein, Germany

EXECUTIVE SUMMARY: In a dermal sensitization study (MRID 46908347 and 46908546) conducted with XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; solid (powder) / white – beige), 30 young female Hsd Poc: DH (SPF) guinea pigs (age: 7 weeks; weight: 356-445 g; source: Harlan Winkelmann GmbH, Borchen, FRG) were tested for sensitizing effect on the skin in the Maximization Test based on the method of Magnusson and Kligman (1969).

From page 10 from the study: "The test substance concentrations for the main test were selected based on the results of the pretest. The intradermal induction was performed with a 5% test substance preparation in 1% CMC-solution in doubly distilled water or 5% test substance preparation in Freund's adjuvant / 0.9% aqueous NaCl-solution (1:1) and the epicutaneous induction with a 50% test substance preparation in 1% CMC-solution in doubly distilled water. For the challenge, a 25% test substance preparation in 1% CMC solution in doubly distilled water was chosen. The study was performed using 1 control group and 1 test group. The intradermal induction was performed on day 0 and the epicutaneous induction on day 7. The challenge was carried out 14 days after the epicutaneous induction."

Dermal readings were recorded at 24 and 48 hours after the removal of the challenge patch.

The report includes results from a positive control study (Project No. 30H0288/982300, completed on November 28, 2003) which utilized Alpha-Hexylcinnamaldehyde Technical, 85%.

After the intradermal injection intense erythema (score 3) and swelling were observed at the injection sites of all control group animals and all test animals at which only Freund's adjuvant/0.9% aqueous NaCl-solution (1:1) was applied. At the injection sites of a 5% test material preparation in Freund's adjuvant/0.9% aqueous NaCl-solution (1:1) intense erythema (score 3) and swelling were seen in all test group animals. Injections of a 5% test material

preparation in 1% CMC-solution in doubly distilled water caused moderate and confluent erythema (score 3) and swelling. The control group animals, injected with 1% CMC-solution in doubly distilled water did not show any dermal reaction. A 50% formulation of 1% CMC-solution in doubly distilled water with Freund's adjuvant/0.9% aqueous NaCl-solution (1:1) caused intense erythema (score 3) and swelling in all control group animals. The epicutaneous induction with a 50% test material preparation in 1% CMC-solution in doubly distilled water led to incrustation, partially open caused by the intradermal induction) and intense erythema (score 3) and swelling in all test group animals.

Challenge with a 25% test material preparation in 1% CMC-solution in doubly distilled water caused discrete or patchy to intense erythema (score 1-3), swelling, scaling and severe scaling in the test group animals. No dermal reactions were noted in the control animals after challenge.

In this study, XDE-742/BAS 770 H (Pyroxsulam) is a dermal sensitizer**.**

This study is classified as Acceptable and satisfies the guideline requirement for a dermal sensitization study (OPPTS 870.2600; OECD 406) in the Guinea pig.

COMPLIANCE: Signed and dated GLP, Quality Assurance, and Data Confidentiality statements were provided.

I. PROCEDURE

A. Induction: The intradermal induction was performed with a 5% test substance preparation in 1% CMC-solution in doubly distilled water or 5% test substance preparation in Freund's adjuvant / 0.9% aqueous NaCl-solution (1:1) and the epicutaneous induction with a 50% test substance preparation in 1% CMC-solution in doubly distilled water.

B. Challenge: For the challenge, a 25% test substance preparation in 1% CMC solution in doubly distilled water was chosen. The challenge was carried out 14 days after the epicutaneous induction.

C. Naive Controls: The control group consisted of 10 animals. The intradermal induction was performed with a undiluted vehicle or with Freund's adjuvant / 0.9% aqueous NaCl-solution (1:1) and an epicutaneous induction was not performed.

II. RESULTS and DISCUSSION:

A. Reactions and duration: After the intradermal injection intense erythema (score 3) and swelling were observed at the injection sites of all control group animals and all test animals at which only Freund's adjuvant/0.9% aqueous NaCl-solution (1:1) was applied. At the injection sites of a 5% test material preparation in Freund's adjuvant/0.9% aqueous NaCl-solution (1:1) intense erythema (score 3) and swelling were seen in all test group animals. Injections of a 5% test material preparation in 1% CMC-solution in doubly distilled water caused moderate and confluent erythema (score 3) and swelling. The control group animals, injected with 1% CMC-solution in doubly distilled water did not show any dermal reaction. A 50% formulation of 1% CMC-solution in doubly distilled water with Freund's adjuvant/0.9% aqueous NaCl-solution (1:1) caused intense erythema (score 3) and swelling in all control group animals. The epicutaneous induction with a 50% test material preparation in 1% CMC-solution in doubly distilled water led to incrustation, partially open caused by the intradermal induction) and intense erythema (score 3) and swelling in all test group animals.

Challenge with a 25% test material preparation in 1% CMC-solution in doubly distilled water caused discrete or patchy to intense erythema (score 1-3), swelling, scaling and severe scaling in the test group animals. No skin reactions were noted in the control animals after challenge.

B. Positive control: The positive control study with Alpha-Hexylcinnamaldehyde Technical, 85%, showed that the study was able to detect sensitizing compounds in the chosen laboratory conditions.

C. Reviewer's Conclusions: All countries agree with the study author's conclusions. From page 10 of the study: "Based on the evaluation criteria cited in chapter 3.6, it was concluded that XDE-742/BAS 770 H has a sensitizing effect on the skin of the guinea pig in the Maximization Test under the test conditions chosen.

D. Deficiencies: None.

ACUTE TOX ONE-LINERS

1. **DP BARCODE:** D332131
2. **PC CODE:** 108702 Pyroxsulam
3. **CURRENT DATE:** 14/AUG/2007
4. **TEST MATERIAL:** XDE-742/BAS 770 H (Pyroxsulam; Purity: 98%; Batch No. E0952-52-01; solid (powder) / white – beige)

Study/Species/Lab Study # /Date	MRID	Results	Tox. Cat.	Core Grade
Acute oral toxicity / rat Experimental Toxicology & Ecology 10A0298/031037 / 12-23-2003	46908337 46908538	LD_{50} => 2000 mg/kg (females)	III	A
Acute dermal toxicity / rat Experimental Toxicology & Ecology 11A0298/031036 / 12-23-2003	46908339 46908540	LD_{50} => 2000 mg/kg (males and females)	III	A
Acute inhalation toxicity / rat JM06001 / 07-25-2006	46908341	Waiver request denied.	---	U
Primary eye irritation / rabbit Experimental Toxicology & Ecology 11H0298/032100 / 12-23-2003	46908343 46908542	Eyes were rinsed at 1 hour instead of 24 hours as specified in guidelines.	IV	MA
Primary dermal irritation / rabbit Experimental Toxicology & Ecology 18H0298/032102 / 12-23-2003	46908345 46908544	Slight erythema observed up to 1 hour.	IV	A
Dermal sensitization / guinea pig Experimental Toxicology & Ecology 30H0298/032101 / 03-26-2004	46908347 46908546	Sensitizing effect	---	A

Core Grade Key: A =Acceptable, MA = Minimally Acceptable, S = Supplementary, U = Unacceptable