

Maisons-Alfort, le 20 août 2008

## AVIS

**de l'Agence française de sécurité sanitaire des aliments  
relatif à l'autorisation de mise sur le marché à titre dérogatoire  
pour des spécialités phytopharmaceutiques à base de diméthoate  
pour lutter contre la mouche de la carotte**

LA DIRECTRICE GENERALE

L'Agence française de sécurité sanitaire des aliments (Afssa) a été saisie le 19 août 2008 par la Direction générale de l'alimentation d'une demande d'avis concernant un projet de dérogation visant à l'utilisation de trois produits à base de diméthoate pour lutter contre la mouche de la carotte, en particulier sur le risque de dépassement, à la récolte, de la limite maximale en résidus (LMR) européenne du diméthoate fixée à 0.02 mg/kg, dans le cadre de 3 applications, effectuées à 7 jours d'intervalle, sur carotte, de 200 g de substance active par hectare, la récolte ayant lieu 35 jours après la dernière application.

Après examen par la Direction du végétal et de l'environnement, l'Agence française de sécurité sanitaire des aliments émet l'avis suivant.

La Limite Maximale en Résidus (LMR) est une valeur concernant le produit agricole à l'état "brut" (fruits, grains, légumes, viande, lait, etc.) avant toute transformation et qui doit être respectée pour toutes les conditions d'utilisation de la substance active afin de garantir un niveau de risque acceptable pour le consommateur.

Pour le diméthoate, le résidu recherché dans les denrées d'origine végétale est la substance active (diméthoate) et son principal métabolite (l'ométhoate). La LMR est fixée à 0.02 mg/kg (somme des limites de quantification des résidus de diméthoate et d'ométhoate) pour toutes les cultures « racines » (dont la carotte) (directive 2002/71/CE). Dans le cadre de l'entrée en vigueur du règlement 396/2005/CE fixant les LMR européennes, cette valeur a été confirmée par le règlement 149/2008.

Le respect des Bonnes Pratiques Agricoles (BPA) d'utilisation du produit au champ (dose de substance active par hectare et par application, nombre d'applications, intervalle entre applications, délai avant récolte) ne doit pas conduire à un dépassement de la LMR fixée.

Considérant les données disponibles au niveau européen sur carotte, il n'est pas possible de garantir que les BPA proposées permettront de respecter cette LMR. En effet, lors de la rédaction de la monographie de cette substance active, l'usage sur carotte n'a pas été évalué (voir extrait de la liste des points finaux en Annexe I).

Par ailleurs, comme le mentionne le rapport établi par le Royaume Uni en 2002 en vue de la fixation des LMR sur cette culture (voir annexe II), les données européennes étaient insuffisantes. Seule l'Allemagne disposait de données résidus (voir annexe III), mais liées à des pratiques très différentes de celles proposées dans la saisine et aboutissant à des niveaux de résidus bien supérieurs aux limites de quantification du diméthoate et de l'ométhoate.

Toutefois, considérant les données fournies à notre demande, par la société CHEMINOVA, seul membre de la « task force diméthoate » à nous avoir transmis des résultats d'essais résidus, il

est possible d'évaluer le risque de dépassement de la LMR fixée sur carotte, en fonction des BPA proposées.

Les essais fournis ont tous été conduits dans la zone Nord de l'Europe (6 au Royaume Uni, 5 en France et 1 au Danemark), en utilisant deux formulations codées CHA3619-02 (8 essais) et CHA3621-02 (4 essais). Ces deux formulations sont de type EC et titrent 400 g/L de diméthoate .

Quatre applications de 240 g/ha de substance active ont été effectuées à 7 jours d'intervalle en respectant un Délai Avant Récolte (DAR) variable de 21 à 42 jours.

Dans 4 essais conduits en 2004 le DAR maximum est de 28 jours et dans les 8 autres, des données sont disponibles pour un DAR de 35 jours.

Les méthodes analytiques utilisées ont été validées afin de respecter, tant pour le diméthoate que pour l'ométhoate, une limite de quantification dix fois inférieure à celle des méthodes utilisées lors des contrôles (0.001 mg/kg)

L'ensemble de ces essais tels que résumés dans le tableau suivant aboutit à des niveaux de résidus inférieurs à la LMR fixée sur carotte.

N° essai	Pays	Date du dernier traitement	Stade à la dernière application	diméthoate (mg/kg)	ométhoate (mg/kg)
AF/8163/CN/1	UK	16/09/2004	BBCH 45-47	0.001 (28j)	0.005 (28j)
AF/8163/CN/2	UK	16/09/2004	BBCH 47	0.008 (28j)	0.008 (28j)
AF/8163/CN/3	FR (71)	05/07/2004	BBCH 48	<0.001 (28j)	0.001 (28j)
AF/8163/CN/4	FR (49)	30/09/2004	BBCH 48	<0.006 (28j)	0.006 (28j)
AF/8797/CN/1	UK	06/09/2005	BBCH 48	0.001	0.006
AF/8797/CN/2	UK	07/10/2005	BBCH 48	0.002	0.002
AF/8797/CN/3	FR (49)	24/10/2005	BBCH 48	<0.001	0.003
AF/8797/CN/4	FR (49)	12/10/2005	BBCH 42	<0.001	0.001
AF/11415/CN/1	UK	24/07/2007	BBCH 43	<0.001	<0.001
AF/11415/CN/2	UK	03/08/2007	BBCH 16	<0.001	<0.001
AF/11415/CN/3	FR (49)	14/08/2007	BBCH 43	<0.001	<0.001
AF/11415/CN/4	DK	05/09/2007	BBCH 47	<0.001	0.001

Les plus hauts niveaux de résidu sont observés dans les essais pour lesquels les dernières données disponibles sont obtenues 28 jours après le dernier traitement, le plus haut niveau de résidu (HR) étant de 0.016 mg/kg

Il convient de noter que les données disponibles ont été obtenues uniquement dans la zone Nord de l'Europe, et que deux formulations ont été utilisées. Toutes choses étant équivalentes par ailleurs, la formulation CHA3621-02 utilisée en 2007 semble aboutir à des niveaux de résidus inférieurs à ceux obtenus en 2005 avec la formulation CHA3619-02. Un effet du type de formulation sur le niveau de résidu ne peut donc être exclu.

Cependant, considérant :

- que les pratiques agricoles appliquées dans ces essais sont plus critiques que celles proposées (240 g/ha de substance active contre 200 g/ha proposées par application, 4 applications au lieu de 3, DAR de 28 jours au lieu de 35 pour 4 essais),
- que, dans la monographie, les niveaux de résidus obtenus sur betterave, une autre culture de type « racine », évalués au Nord et au Sud Europe pour des BPA voisines (voire plus critiques en zone Sud), se sont avérés voisins dans les deux zones,

il apparaît que le risque de dépassement de la LMR du diméthoate sur carotte en utilisant conformément aux BPA proposées (3 applications apportant 200 g/ha de substance active, effectuées à 7 jour d'intervalle et en respectant un DAR de 35 jours) des spécialités en formulation EC, est peu probable.

L'Agence française de sécurité sanitaire des aliments émet un avis favorable à l'octroi de la dérogation proposée dans les conditions précisées ci-dessus.

**Pascale BRIAND**

## Données :

Author (s)	Annex point reference n°	Year	Title – Source – Company - Report n° GLP compliance - Published or not	Data Protection claimed Y/N	Owner
Harrison C.		2005	Title : final report amendment n°1 on project AF/8163/CN – dimethoate residues in carrot in Northern Europe 2004 Source : Cheminova Agro France Company : Agrisearch UK, Ltd Report N°: AF/8163/CN GLP compliance : Yes Unpublished	Y	CHEMINOVA A/S
Harrison C.		2006	Title : final report on project AF/8797/CN – dimethoate residues in carrot in Northern Europe 2005 Source : Cheminova Agro France Company : Agrisearch UK, Ltd Report N°: AF/8797/CN GLP compliance : Yes Unpublished	Y	CHEMINOVA A/S
Harrison C.		2008	Title : final report on project AF/11415/CN – dimethoate residues in carrot in Northern Europe 2007 Source : Cheminova Agro France Company : Agrisearch UK, Ltd Report N°: AF/11415/CN GLP compliance : Yes Unpublished	Y	CHEMINOVA A/S

**Annexe I :**

**Extrait de la liste des points finaux de la monographie du diméthoate (Mars 2006)  
concernant les BPA évaluées, les méthodes analytiques et la partie « résidus »**

<b>Rapporteur Member State</b>	<b>Month and year</b>	<b>Active Substance (Name)</b>
UK	March 2006	Dimethoate

List of end points (based on doc 1654/VI/94, Rev. 7, 22 Apr 1998)

Identity, Physical and Chemical Properties, Details of Uses, Further Information, Methods of Analysis

Rapporteur Member State	Month and year	Active Substance (Name)
UK	March 2006	Dimethoate

Summary of representative uses evaluated (active substance)\*

Crop and/or situation (a)	Member State or Country	Product name	F G or I (b)	Pests or Group of pests controlled (c)	Formulation		Application				Application rate per treatment			PHI (days) (l)	Remarks: (m)
					Type (d-f)	Conc. of as (i)	method kind (f-h)	growth stage & season (j)	number min max (k)	interval between applications (min)	kg as/hL min max	water L/ha min max	kg as/ha min max		
Wheat	South	Danadim Dimethoate 40	F	Biting and sucking insects	EC	400 g/L	Spraying	BBCH < 75	1	30d	0.1	400	0.4	28	
Wheat	North	Danadim Dimethoate 40	F	Biting and sucking insects	EC	400 g/L	Spraying	1 <sup>st</sup> appl.: BBCH 23/30 2 <sup>nd</sup> appl.: BBCH ≤ 69	2	30d	1 <sup>st</sup> appl.: 0.34 2 <sup>nd</sup> appl.: 0.17	200	1 <sup>st</sup> appl.: 0.68 2 <sup>nd</sup> appl.: 0.34	nr*	
Olives	South	Danadim Dimethoate 40	F	Biting and sucking insects	EC	400 g/L	Spraying	nr	4	> 20 d	0.06	1200 <sup>1)</sup>	0.72	28	

\* Uses for which the risk assessment can not be concluded are marked grey.

List of end points (based on doc 1654/VI/94, Rev. 7, 22 Apr 1998)

Identity, Physical and Chemical Properties, Details of Uses, Further Information, Methods of Analysis

Rapporteur Member State      Month and year      Active Substance (Name)

UK      March 2006      Dimethoate

Crop and/or situation (a)	Member State or Country	Product name	F G or I (b)	Pests or Group of pests controlled (c)	Formulation		Application				Application rate per treatment			PHI (days) (l)	Remarks: (m)
					Type (d-f)	Conc. of as (i)	method kind (f-h)	growth stage & season (j)	number min max (k)	interval between applications (min)	kg as/hL min max	water L/ha min max	kg as/ha min max		
Sugar beet	South	Danadim Dimethoate 40	F	Biting and sucking insects	EC	400 g/L	Spraying	nr	2	30 d	0.06	1000	0.6	30	
Sugar beet	North	Danadim Dimethoate 40	F	Biting and sucking insects	EC	400 g/L	Spraying	nr	2	30 d	1 <sup>st</sup> appl.: 0.0084-0.042  2 <sup>nd</sup> appl.: 0.04-0.2	200-1000	1 <sup>st</sup> appl.: 0.084  2 <sup>nd</sup> appl.: 0.4	35	
Tomatoes	South	Danadim Dimethoate 40	F	Biting and sucking insects	EC	400 g/L	Spraying	nr	2	15 d	0.1	600	0.6	21	
Lettuce	North	Danadim Dimethoate 40	G	Biting and sucking insects	EC	400 g/L	Gantry Spraying	GS19 †	1	nr	0.17	200	0.34	28	

- Remarks:**
- (a) For crops, the EU and Codex classifications (both) should be used; where relevant, the use situation should be described (e.g. fumigation of a structure)
  - (b) Outdoor or field use (F), glasshouse application (G) or indoor application (I)
  - (c) e.g. biting and sucking insects, soil born insects, foliar fungi, weeds
  - (d) e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR)
  - (e) GCPF Codes - GIFAP Technical Monograph No 2, 1989
  - (f) All abbreviations used must be explained
  - (g) Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench
  - (h) Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plants - type of equipment used must be indicated
  - (i) g/kg or g/l
  - (j) Growth stage at last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application
  - (k) The minimum and maximum number of application possible under practical conditions of use must be provided
  - (l) PHI - minimum pre-harvest interval
  - (m) Remarks may include: Extent of use/economic importance/restrictions

List of end points (based on doc 1654/VI/94, Rev. 7, 22 Apr 1998)

Residues

Rapporteur Member State	Month and year	Active Substance (Name)
UK	March 2006	Dimethoate

Analytical methods for residues (Annex IIA, point 4.2)

Food/feed of plant origin (principle of method and LOQ for methods for monitoring purposes)

Samples were extracted with dichloromethane, dimethoate and omethoate were determined by LC-MS. LOQ was 0.01 mg/kg for both dimethoate and omethoate in wheat, sugar beet, tomatoes, olives, olive oil and lettuce.

Samples were extracted with aqueous acetone, dimethoate and omethoate were determined by GC-FPD. LOQ was 0.01 mg/kg for both dimethoate and omethoate in sugar beet.

Samples were extracted with ethyl acetate, dimethoate and omethoate were determined by GC-FPD. LOQ was 0.01 mg/kg for both dimethoate and omethoate in lettuce.

Samples were extracted with acetone or ethyl acetate, dimethoate and omethoate were determined by GC-FPD. LOQ was 0.01 mg/kg for both dimethoate and omethoate sorghum, peas, wheat, corn, orange, potato, tomato (including various processed fractions for all crops).

Samples were mixed with hexane (olive oil) or ethyl acetate (olives, lettuce, orange and wheat grain) and then extracted with acetonitrile, dimethoate and omethoate were determined by GC-FPD. LOQ was 0.01 mg/kg for all crops.

Food/feed of animal origin (principle of method and LOQ for methods for monitoring purposes)

Samples were extracted with acetone or acetonitrile, dimethoate and omethoate were determined by GC-FPD. LOQ for both dimethoate and omethoate was 0.001 mg/kg (milk and egg white), 0.01 mg/kg (goat liver, kidney, fat) and 0.05 mg/kg in whole egg).



List of end points (based on doc 1654/VI/94, Rev. 7, 22 Apr 1998)

Residues

Rapporteur Member State	Month and year	Active Substance (Name)
UK	March 2006	Dimethoate

Residues

**Metabolism in plants** (Annex IIA, point 6.1 and 6.7, Annex IIIA, point 8.1 and 8.6)

Plant groups covered	Potato (R & L) and wheat (C), extrapolated to all groups
Rotational crops	Wheat (C) , lettuce (L) and turnip (R)
Plant residue definition for monitoring	Dimethoate plus omethoate
Plant residue definition for risk assessment	Dimethoate plus 6 x omethoate (acute) expressed as dimethoate Dimethoate plus 3 x omethoate (chronic) expressed as dimethoate
Conversion factor (monitoring to risk assessment)	

**Metabolism in livestock** (Annex IIA, point 6.2 and 6.7, Annex IIIA, point 8.1 and 8.6)

Animals covered	Goat and hen
Animal residue definition for monitoring	Dimethoate plus omethoate
Animal residue definition for risk assessment	Dimethoate plus omethoate
Conversion factor (monitoring to risk assessment)	
Metabolism in rat and ruminant similar (yes/no)	yes
Fat soluble residue: (yes/no)	No (log P <sub>ow</sub> <4)

**Residues in succeeding crops** (Annex IIA, point 6.6, Annex IIIA, point 8.5)

.....	The studies show metabolism in succeeding crops is similar to that seen in primary crops.
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**Stability of residues** (Annex IIA, point 6 introduction, Annex IIIA, point 8 introduction)

.....	Dimethoate and omethoate residues have been shown to be stable when frozen between -10°C and -20°C for up to 27 months in potato, orange fruit, sorghum grain/forage and cottonseed as well as cherries stored for 6 months. These data are sufficient to cover the storage periods for the sample in the residues trials (wheat grain and straw – 9.5 months; olive – 6.5 months; sugar beet roots and tops – 8 months; Tomatoes – 5.5 months and protected lettuce – 4.5 months).
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List of end points (based on doc 1654/VI/94, Rev. 7, 22 Apr 1998)

**Residues**

Rapporteur Member State	Month and year	Active Substance (Name)
UK	March 2006	Dimethoate

**Residues from livestock feeding studies** (Annex IIA, point 6.4, Annex IIIA, point 8.3)

Intakes by livestock  $\geq 0.1$  mg/kg diet/day:

	Ruminant: yes/no	Poultry: yes/no	Pig: yes/no
Muscle	No	No	No
Liver	No	No	No
Kidney	No	No	No
Fat	No	No	No
Milk	No		
Eggs		No	

List of end points (based on doc 1654/VI/94, Rev. 7, 22 Apr 1998)

## Residues

Rapporteur Member State	Month and year	Active Substance (Name)
UK	March 2006	Dimethoate

Summary of critical residues data for dimethoate (Annex IIA, point 6.3, Annex IIIA, point 8.2)

Crop	Northern or Mediterranean Region	Trials results relevant to the critical GAP (a)	Recommendation/comments	MRL‡‡	STMR (b)
Wheat grain	North	6 x <0.001, 2 x 0.001	SMS is critical GAP	0.02**	0.001
Wheat straw	North	5 x <0.01, 0.01, 0.02, 0.05, 0.07	No MRLs set for straw		0.01
Wheat grain	South	<0.001, 0.007, 4 x <0.01, 0.014, 0.024	Critical GAP	0.2‡	0.01
Wheat straw	South	<0.01, 2 x 0.03, 0.05, 0.11, 0.15, 0.37, 0.45	No MRLs set for straw		0.08
Olive	South	2 x <0.01, 0.01, 0.03, 0.04, 0.13, 0.15, 0.21, 0.34	† 5.0 for raw olives (rarely traded and never consumed), 1.0 for table olives and 0.2 for olive oil	5, 1 & 0.2†	0.04
Sugar beet root	North	3 x <0.02, 5 x <0.01	MRLs not set for beet or tops		0.01
Sugar beet tops	North	4 x <0.01, 3 x <0.1, 0.03	MRLs not set for beet or tops		0.01
Sugar beet root	South	8 x <0.01	MRLs not set for beet or tops		0.01
Sugar beet tops	South	8 x <0.01	MRLs not set for beet or tops		0.01
Tomato	South	8 x <0.01		0.2	0.01
Lettuce (protected)	North	<0.01, 2 x 0.01, 2 x 0.02, 0.06, 0.16, 0.17	Use is acceptable early use (before GS19)	0.5	0.02

‡‡ MRL set as sum of dimethoate and omethoate

## List of end points (based on doc 1654/VI/94, Rev. 7, 22 Apr 1998)

## Residues

Rapporteur Member State	Month and year	Active Substance (Name)
UK	March 2006	Dimethoate

## Summary of critical residues data for omethoate (Annex IIA, point 6.3, Annex IIIA, point 8.2)

Crop	Northern or Mediterranean Region	Trials results relevant to the critical GAP (a)	Recommendation/comments	MRL	STMR (b)
Wheat grain	North	5 x <0.001, 2 x 0.001, 0.002			0.001
Wheat straw	North	8 x <0.01			0.01
Wheat grain	South	<0.001, 0.001, 2 x 0.002, 4 x <0.01			0.006
Wheat straw	South	4 x <0.01, 0.01, 0.05, 0.07, 0.08			0.01
Olive	South	2 x 0.06, 0.07, 0.20, 0.22, 0.26, 0.33, 0.40, 0.44			0.22
Sugar beet root	North	3 x <0.02, 5 x <0.01			0.01
Sugar beet tops	North	3 x <0.01, 3 x <0.1, 0.01, 0.02			0.01
Sugar beet root	South	8 x <0.01			0.01
Sugar beet tops	South	4 x <0.01, 2 x 0.02, 0.03, 0.04			0.015
Tomato	South	6 x <0.01, 0.01, 0.02			0.01
Lettuce (protected)	North	4 x <0.01, 0.01, 2 x 0.03, 0.04			0.01

(a) Numbers of trials in which particular residue levels were reported e.g. 3 x <0.01, 1 x 0.01, 6 x 0.02, 1 x 0.04, 1 x 0.08, 2 x 0.1, 2 x 0.15, 1 x 0.17

(b) Supervised Trials Median Residue *i.e.* the median residue level estimated on the basis of supervised trials relating to the critical GAP

List of end points (based on doc 1654/VI/94, Rev. 7, 22 Apr 1998)

Residues

Rapporteur Member State	Month and year	Active Substance (Name)
UK	March 2006	Dimethoate

Consumer risk assessment (Annex IIA, point 6.9, Annex IIIA, point 8.8)

ADI	0.001 mg/kg bw/day		
TMDI (European Diet) (% ADI)	0.001177 (117%)		
NEDI (% ADI)	Highest intake on bodyweight basis consumer: 4-6 yr old children 0.000856 (86%)		
Factors included in NEDI			
ARfD	0.01 mg/kg bw/day		
Acute exposure (% ARfD)	Oils	3.9%	4-6 year old child
	Olives	13.2%	4-6 year old child
	Tomato	62.7%	infant
	Lettuce	71.1%	4-6 year old child
	Wheat	10.2%	4-6 year old child
	Sugar beet (as RAC)	54.4%	toddler

Processing factors (Annex IIA, point 6.5, Annex IIIA, point 8.4)

Crop/processed crop	Number of studies	Transfer factor (dimethoate)	Transfer factor (omethoate)
Olive	3		
RAC prior to processing		1.00	1.00
Raw olive oil		0.30	<0.01
Refined olive oil		0.27	0.01
6 month canned olives (sterilised)		0.09	0.01
6 month canned olives (non sterilised)		0.30	0.12
6 month canned brine (sterilised)		0.04	0.01
6 month canned brine (non sterilised)		0.16	0.08

## List of end points (based on doc 1654/VI/94, Rev. 7, 22 Apr 1998)

## Residues

Rapporteur Member State	Month and year	Active Substance (Name)
UK	March 2006	Dimethoate

## Proposed MRLs (Annex IIA, point 6.7, Annex IIIA, point 8.6)

Commodity	MRL suggested by review under 91/414 (mg/kg)	Comments
Wheat (N)	0.02* $R_{(max)} = 0.015$ $R_{(ber)} = 0.014$	Trials include much lower LOQ for grain, which allows for lower MRL despite NMS being critical GAP
Wheat (S)	0.2 $R_{(max)} = 0.134$ $R_{(ber)} = 0.140$	GAP less critical than NMS but LOQ much higher. SMS use is critical in terms of residues and MRL. EU MRL to be amended following evaluation.
Olives		
Raw at harvest	5 $R_{(max)} = 4.222$ $R_{(ber)} = 4.640$	Included for completeness, however, whilst raw olives may rarely be traded, they would not be consumed.
Table consumption	1.0 $R_{(max)} = 0.578$ $R_{(ber)} = 0.624$	Processing factors used. EU MRL to be amended following evaluation.
As olive oil	0.2 $R_{(max)} = 0.167$ $R_{(ber)} = 0.161$	Processing factors used. EU MRL to be amended following evaluation.
Tomatoes (S)	0.2 $R_{(max)} = 0.145$ $R_{(ber)} = 0.140$	EU MRL to be amended following evaluation.
Lettuce (N) Protected use	0.5 for protected use.	MRL for outdoor use will cover the protected use $R_{(max)} = 0.331$ $R_{(ber)} = 0.345$

**Annexe II :**

**Extrait du rapport établi par le Royaume Uni en 2002 :**

**UK MRL PROPOSAL FOR DIMETHOATE AND  
(MAIN PLANT METABOLITE OMETHOATE)  
IN PRE-PREPARED POSITIONS**

**PREPARED BY UK,  
PESTICIDES SAFETY DIRECTORATE  
23<sup>rd</sup> January 2002**

SCFCAH 19-20/3/02 Item 2-2

**Pesticide: Dimethoate and plant metabolite omethoate**

II

Residue definition:

*Food of plant origin:* Not confirmed but will include dimethoate and omethoate

*Food of animal origin:* Not assessed

LOQ for monitoring purposes: food of plant origin: 0.01 mg/kg except wheat grain proposed at 0.001 mg/kg by DTF

Groups and examples of individual products to which the MRLs apply	MRLs (mg/kg)							Remarks → only editorial amendments ←
	Dimethoate			Omethoate			D+O	
(N) = North (S) = South	Codex (CXL)	EC (current)	EC (proposed)	Codex (CXL)	EC (current)	EC (proposed)	EC (proposed)	
<b>2. VEGETABLES</b>								GAP in SW for certain root veg with 21 day PHI. No supporting data † Recommended for withdrawal by 1998 JMPR
<b>(I) ROOT AND TUBER VEGETABLES</b>								
<b>b) Carrots</b>	1†	1		None	0.1			GAP in Gr. 4 x 0.25 kg ai/ha, PHI 21 days. No supporting data GAP in NL, 3 x 0.2 kg ai/ha, PHI 21 days. No supporting data GAP in It 1 x 0.04 kg ai/ha, PHI 20 days. No supporting data GAP in D 2 x 0.24 kg ai/ha, PHI 14 days } 1 x 1.2 kg ai/ha, PHI 28 days }Germany to clarify how data support use as rate expressed in several different ways



**Annexe III :**

**Résultats d'essais résidus sur carotte fournis par l'Allemagne :**

**Dimethoate Residues**

**Data submitted by Germany,  
Federal Biological Research Centre for Agriculture and Forestry**

**RESIDUES DATA SUMMARY FROM SUPERVISED TRIALS (SUMMARY)**

(Application on agricultural and horticultural crops)

Federal Biological Research Centre for Agriculture and Forestry

Chemistry Division

D-38104 Braunschweig, Messeweg 11-12

Federal Republic of Germany

Content of a.i. (g/kg or g/l) : 404 g/l  
 Formulation (e.g. WP) : EC  
 Commercial product (name) : Rogor (ZA 030326-00)  
 Applicant : Spiess-Urania Chemicals GmbH (SPU)

Active ingredient : Dimethoate  
 Crop / crop group : Carrots

Submission date : June 2001  
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Indoors / outdoors : Outdoors  
 Other a. i. in formulation (common name and content) : --  
 Residues calculated as : Dimethoate and metabolite Omethoate

1 Report-No. Location incl. Postal code and date	2 Commodity / Variety	3 Date of 1) Sowing or planting 2) Flowering 3) Harvest	4 Application rate per treatment			5 Dates of treatments or no. of treatments and last date	6 Growth stage at last treatment or date	7 Portion analysed	8 Residues (mg/kg)	9 PHI (days)	10 Remarks
			kg a.i. / ha	Water l / ha	kg a.i. / hl						
DE- Kiel  20.03.1974	Lange, stumpfe ohne Herz	1) -- 2) -- 3) --	0.2 g / m	500 ml / m	--	09.08.73 * 29.08. (20)	--	carrots	0.06 0.05	28 42	< 0.01 < 0.01  * watering
103FX-532- 5303  DE-7801 Mengen	Hilds Fanal	1) 12.03.82 (sowing) 2) -- 3) from 10.07.82	--  0.24	500 ml / m  600	  0.04	21.05.82 *  21.06. (31) ** 05.07. (14)	stage 47	roots, washed	< 0.01 < 0.01 < 0.01 < 0.01 < 0.01	0 7 14 21 28 35	< 0.01 < 0.01 < 0.01 < 0.01 < 0.01  * watering ** spraying
103FX-532- 5304  DE-7752 Reichenau	Nantaise	1) 15.03.82 (sowing) 2) -- 3) from 10.07.82	--  0.24	500 ml / m  600	  0.04	21.05.82 *  21.06. (31) ** 05.07. (14)	stage 47	roots, washed	< 0.01 < 0.01 < 0.01 < 0.01 < 0.01	0 7 14 21 28 35	< 0.01 < 0.01 < 0.01 < 0.01 < 0.01  * watering

** spraying									
<b>RESIDUES DATA SUMMARY FROM SUPERVISED TRIALS (SUMMARY)</b>						Active ingredient		: Dimethoate	
(Application on agricultural and horticultural crops)						Crop / crop group		: Carrots	
Federal Biological Research Centre for Agriculture and Forestry						Submission date		: June 2001	
Chemistry Division						Page		: 001	
D-38104 Braunschweig, Messeweg 11-12						Indoors / outdoors		: Outdoors	
Federal Republic of Germany						Other a. i. in formulation		: --	
Content of a.i. (g/kg or g/l) : 400 g/l						Residues calculated as		: Dimethoate and metabolite	
Formulation (e.g. WP) : EC								Omethoate	
Commercial product (name) : PERFEKTHION (ZA 030090-00)									
Applicant : BASF Aktiengesellschaft (BAS)									

1 Report-No. Location incl. Postal code and date	2 Commodity / Variety	3 Date of 1) Sowing or planting 2) Flowering 3) Harvest	4 Application rate per treatment			5 Dates of treatments or no. of treatments and last date	6 Growth stage at last treatment or date	7 Portion analysed	8 Residues (mg/kg)	9 PHI (days)	10 Remarks
			kg a.i. / ha	Water l / ha	kg a.i. / hl						
DE- 08.06.1972	early	1) -- 2) -- 3) --	0.2 g / m	500 ml / m	--	2 applications *	--	carrots	0.4 < 0.1 < 0.1	21 30 67	--  * watering
DE- 08.06.1972	early	1) 1962 2) -- 3) --	12	3.0 l / m <sup>2</sup>	--	2 applications *	--	carrots	0.1 0.03	37 122	--  * spraying
DE- Stuttgart 08.06.1972	--	1) 1963 2) -- 3) --	1.6 g / m <sup>2</sup>	4.0 l / m <sup>2</sup>	--	1 application *	--	carrots	< 0.03	108	--  * watering
CLA 70620 I DE- Godesberg 08.06.1972	--	1) 1963 2) -- 3) --	1.6 g / m <sup>2</sup>	4.0 l / m <sup>2</sup>	--	1 application *	--	carrots	0.20 < 0.03	69 142	--  * watering

PERFEKTHION (ZA 030090-00) Dimethoate / Carrots

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1 Report-No. Location incl. Postal code and date	2 Commodity / Variety	3 Date of 1) Sowing or planting 2) Flowering 3) Harvest	4 Application rate per treatment			5 Dates of treatments or no. of treatments and last date	6 Growth stage at last treatment or date	7 Portion analysed	8 Residues (mg/kg)	9 PHI (days)	10 Remarks
			kg a.i. / ha	Water l / ha	kg a.i. / hl						
	(a)	(b)				(c)		(a)	(d)	(e)	
CLA 70620 I DE- Solingen 08.06.1972	--	1) 1963 2) -- 3) --	0.2 g / m	500 ml / m	--	1 application *	--	carrots	0.35 0.17 0.05	24 60 97	--  * watering
No. C 827172 DE-6501 Schwabenheim	Rotin	1) 14.04.82 (sowing) 2) -- 3) from the middle of August	0.2 g / m	500 ml / m	--	28.06.82 *	stage 45	roots, washed	< 0.02 < 0.02 < 0.02 < 0.02 < 0.02 < 0.02	21 28 35 42 49 56	0.06 < 0.02 < 0.02 < 0.02 < 0.02 < 0.02 * watering
No. 14784 BBA-trial DE-2900 Oldenburg	Nantaise Typ Markt- gärtner	1) 27.04.79 (sowing) 2) -- 3) 18.07.79	0.6	600	0.1	20.06.79 * 04.07. (14)	--	roots	0.006 0.007 0.002	14 21 28	0.004 0.002 < 0.002 * spraying
No. 79102 BBA-trial DE-6081 Büttelborn	Fanal	1) 08.05.79 (sowing) 2) -- 3) from the middle of September	0.6	600	0.1	31.07.79 * 14.08. (14)	--	roots	0.019 0.021 0.027	14 21 28	0.004 0.002 < 0.002 * spraying
No. 17065 BBA-trial DE-8055 Hallbergmoos	Winter perfektion	1) 18.04.79 (sowing) 2) -- 3) from the middle of August	0.6	600	0.1	28.06.79 * 12.07. (14)	stage 45	roots	0.008 < 0.001 < 0.001	14 21 28	0.003 < 0.002 < 0.002 * spraying
No. 0479 BBA-trial DE-5030 Hürth- Fischenich	Lange,rote Stumpfe	1) 25.04.79 (sowing) 2) -- 3) from September	0.6	600	0.1	27.06.79 * 10.07. (14)	stage 45	roots	0.097 0.014 0.006	14 21 28	0.057 0.006 0.004 * spraying

PERFEKTHION (ZA 030090-00) Dimethoate / Carrots

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1 Report-No. Location incl. Postal code and date	2 Commodity / Variety	3 Date of 1) Sowing or planting 2) Flowering 3) Harvest	4 Application rate per treatment			5 Dates of treatments or no. of treatments and last date	6 Growth stage at last treatment or date	7 Portion analysed	8 Residues (mg/kg)	9 PHI (days)	10 Remarks
			kg a.i. / ha	Water l / ha	kg a.i. / hl						
(a)	(b)	(b)			(c)		(a)		(d)	(e)	
BBA-trial DE-6500 Mainz	Lange,rote Stumpfe ohne Herz	1) 16.05.79 (sowing) 2) -- 3) from September	0.68	650	0.105	12.06.79 * 10.07. (14)	stage 43	roots	0.001 < 0.001 < 0.001	14 21 28	< 0.002 < 0.002 < 0.002  * spraying
No. 0479 BBA-trial DE-2400 Lübeck	Lange,rote Stumpfe ohne Herz	1) 15.05.79 (sowing) 2) -- 3) 01.08.79	0.6	600	0.1	04.07.79 * 18.07. (14)	--	roots	0.020 0.007 0.002	14 21 28	0.002 < 0.002 < 0.002  * spraying
No. 24040 BBA-trial DE-7831 Merdingen	Kieler Rote	1) 04.06.79 (sowing) 2) -- 3) November	0.6	600	0.1	12.07.79 * 26.07. (14)	stage 15 (old)	roots	< 0.001 < 0.001 < 0.001	14 21 28	< 0.002 < 0.002 < 0.002  * spraying
No. 0479 BBA-trial DE- Schmiden	Tip Top	1) -- 2) -- 3) --	0.6	600	0.1	26.06.79 * 12.07. (16)	--	roots	0.127 < 0.001 < 0.001	14 21 28	--  * spraying
No. 15211 I 82 / 10A DE-6703 Limburgerhof	Mohum	1) 13.04.82 (sowing) 2) -- 3) from 20.07.82	8.0	500	1.6	29.06.82 *	stage 45	carrots	0.59 0.39 0.20 0.12 0.06	21 29 35 42 49	< 0.05 < 0.05 < 0.05 < 0.05 < 0.05  * watering

Remarks: (a) According to CODEX Classification / Guide

(b) Only if relevant

(c) Year must be indicated

(d) Days after last application (Label pre-harvest interval, PHI, underline)

(e) Remarks may include: Climatic conditions; Reference to analytical method and information which metabolites are included

Note: All entries to be filled in as appropriate