



EUROPEAN COMMISSION  
HEALTH & CONSUMERS DIRECTORATE-GENERAL

Directorate E – Safety of the food chain  
**Unit E.3 - Chemicals, contaminants and pesticides**

Dazomet  
SANCO/10110/2011 final  
11 March 2011

Review report for the active substance **dazomet**  
finalised in the Standing Committee on the Food Chain and Animal Health at its meeting on  
11 March 2011  
in view of the inclusion of dazomet in Annex I of Directive 91/414/EEC

## **1. Procedure followed for the re-evaluation process**

This review report has been established as a result of the re-evaluation of dazomet, made in the context of a new application by the data submitter after the non-inclusion of this substance.

Dazomet is a substance that was covered by the third stage of the work programme for review of existing active substances provided for in Article 8(2) of Directive 91/414/EEC concerning the placing of plant protection products on the market<sup>1</sup>, with a view to the possible inclusion of this substance in Annex I to the Directive.

Article 11(e) of Commission Regulation (EC) No 1490/2002<sup>2</sup> laying down detailed rules for the implementation of the third stage of the work programme offered the possibility for the notifier to withdraw, under specific conditions, its support for the active substance. All notifiers withdrew their support and dazomet was not included through Commission Decision 2008/934/EC<sup>3</sup>.

In accordance with Article 13 of Regulation (EC) No 33/2008<sup>4</sup>, Kanesho Soil Treatment SPRL/BVBA, the sole data submitter presented, on 10 June 2009 a request to Belgium, the rapporteur Member State, for a new application aiming at Annex I inclusion of the substance.

Belgium finalised in December 2009 its examination, in the form of an additional Report. This Report was sent to the Commission and the European Food Safety Authority on 10 December 2009 and included a recommendation as to include dazomet in Annex I for the supported uses.

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<sup>1</sup> O.J. No L 230, 19.8.1991

<sup>2</sup> O.J. No L 224, 21.8.2002

<sup>3</sup> OJ No L 333, 11.12.2008, p.11

<sup>4</sup> OJ No L 252, 20.9.2008, p. 37

In accordance with the provisions of Article 19 of Regulation (EC) No 33/2008, the EFSA organised the consultation on the additional report by all the Member States as well as by Kanesho Soil Treatment SPRL/BVBA being the sole data submitter, on 11 December 2009 by making it available.

The EFSA organised a focused consultation of scientific experts from a certain number of Member States, to review the additional report, the draft assessment report and the comments received thereon (peer review) and to deliver its conclusion.

In accordance with the provisions of Article 20 of Regulation (EC) No 33/2008 the EFSA sent to the Commission its conclusion on the risk assessment of the active substance dazomet<sup>5</sup>. This conclusion refers to background document A (draft assessment report and additional report) and background document B (EFSA peer review report).

In accordance with the provisions of Article 21 of Regulation (EC) No 33/2008, the Commission referred a draft review report to the Standing Committee on the Food Chain and Animal Health, for final examination. The draft review report was finalised in the meeting of the Standing Committee on 11 March 2011.

The present review report contains the conclusions of the final examination by the Standing Committee. Given the importance of the conclusion of the EFSA, and the comments and clarifications submitted after the conclusion of the EFSA (background document C), these documents are also considered to be part of this review report.

## 2. Purposes of this review report

This review report, including the background documents and appendices hereto, has been developed and finalised in support of Commission **Directive 2011/53/EU**<sup>6</sup> concerning the inclusion of dazomet in Annex I to Directive 91/414/EEC, and to assist the Member States in decisions on individual plant protection products containing dazomet they have to take in accordance with the provisions of that Directive, and in particular the provisions of article 4(1) and the uniform principles laid down in Annex VI.

This review report provides also for the evaluation required under Section A.2.(b) of the above mentioned uniform principles, as well as under several specific sections of part B of these principles. In these sections it is provided that Member States, in evaluating applications and granting authorisations, shall take into account the information concerning the active substance in Annex II of the directive, submitted for the purpose of inclusion of the active substance in Annex I, as well as the result of the evaluation of those data.

In accordance with the provisions of Article 22 of Regulation (EC) No 33/2008, this review report will be made available for public consultation by any interested parties.

The information in this review report is, at least partly, based on information which is confidential and/or protected under the provisions of Directive 91/414/EEC. It is therefore recommended that this review report would not be accepted to support any registration outside

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<sup>5</sup>European Food Safety Authority ; Conclusion on the peer review of the pesticide risk assessment of the active substance dazomet. EFSA Journal 2010; 8(10):1833. [91 pp.]. doi:10.2903/j.efsa.2010.1833. Available online: [www.efsa.europa.eu](http://www.efsa.europa.eu)

<sup>6</sup> OJ L 105, 21.4.2011, p. 24–27

the context of Directive 91/414/EEC, e.g. in third countries, for which the applicant has not demonstrated to have regulatory access to the information on which this review report is based.

### 3. Overall conclusion in the context of Directive 91/414/EEC

The overall conclusion from the evaluation is that it may be expected that plant protection products containing dazomet will fulfil the safety requirements laid down in Article 5(1)(a) and (b) of Directive 91/414/EEC. This conclusion is however subject to compliance with the particular requirements in sections 4, 5, 6 and 7 of this report, as well as to the implementation of the provisions of Article 4(1) and the uniform principles laid down in Annex VI of Directive 91/414/EEC, for each dazomet containing plant protection product for which Member States will grant or review the authorisation.

Furthermore, these conclusions were reached within the framework of the uses which were proposed and supported by the data submitter and mentioned in the list of uses supported by available data (attached as Appendix II to this review report).

Extension of the use pattern beyond those described above will require an evaluation at Member State level in order to establish whether the proposed extensions of use can satisfy the requirements of Article 4(1) and of the uniform principles laid down in Annex VI of Directive 91/414/EEC.

The following reference values have been finalised as part of this re-evaluation:

#### Dazomet

ADI	0.01 mg/kg bw/day
ARfD	0.03 mg/kg bw
AOEL	0.015 mg/kg bw/day

#### Methyl isothiocyanate

ADI	0.004 mg/kg bw/day
ARfD	0.03 mg/kg bw
AOEL	0.004 mg/kg bw/day

With particular regard to residues, the review has established that the residues arising from the proposed uses, consequent on application consistent with good plant protection practice, have no harmful effects on human or animal health. The Theoretical Maximum Daily Intake (TMDI) is less than 1% of the Acceptable Daily Intake (ADI), (EFSA PRIMo rev2; based on methyl isothiocyanate). Additional intake from water is not expected to give rise to intake problems.

Estimates of acute dietary exposure of adults and children revealed that the Acute Reference Dose (ARfD) would not be exceeded (less than 2% of ARfD according to EFSA PRIMo model rev. 2; based on methyl isothiocyanate).

The review has identified acceptable exposure scenarios for operators, workers and bystanders, which require however to be confirmed for each plant protection product in accordance with the relevant sections of the above mentioned uniform principles.

The review has also concluded that under the proposed and supported conditions of use there are no unacceptable effects on the environment, as provided for in Article 4 (1) (b) (iv) and (v) of Directive 91/414/EEC.

#### **4. Identity**

The main identity of dazomet is given in Appendix I.

At the time of the re-evaluation of dazomet a FAO specification and evaluation according to the New Procedure<sup>7</sup> was available.

#### **5. Endpoints and related information**

In order to facilitate Member States, in granting or reviewing authorisations, to apply adequately the provisions of Article 4(1) of Directive 91/414/EEC and the uniform principles laid down in Annex VI of that Directive, the most important endpoints were identified during the re-evaluation process. These endpoints are listed in the conclusion of the EFSA, and at section 3 of this report.

#### **6. Particular conditions to be taken into account on short term basis by Member States in relation to the granting of authorisations of plant protection products containing dazomet.**

On the basis of the proposed and supported uses (as listed in Appendix II), the following particular issues have been identified as requiring particular and short term attention from all Member States, in the framework of any authorisations to be granted :

Member States should pay particular attention to:

- (a) the risk for operators and shall ensure that conditions of use include risk mitigation measures, such as a limitation in the daily work rate, the application of adequate personal protective equipment, the application of adequate respiratory protective equipment and/or the use of tractors equipped with air-conditioned cabins with carbon filters;
- (b) the risk for workers and shall ensure that conditions of use include risk mitigation measures, such as a limitation in the daily work rate and/or the application of adequate personal protective equipment;
- (c) the risk for bystanders and shall ensure that conditions of use include risk mitigation measures;
- (d) the protection of groundwater where dazomet is applied in regions with vulnerable soil and/or climatic condition;;
- (e) the risk to aquatic organisms and shall ensure that conditions of use include risk mitigation measures, such as buffer zones.

#### **7. List of studies to be generated**

Further studies were identified which were at this stage considered necessary in relation to the inclusion of dazomet in Annex I under the current inclusion conditions.

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<sup>7</sup> 5th edition of the “ Manual on the development and use of FAO specifications for plant protection products” (FAO Plant Production and Protection Page No. 149).

The concerned Member States shall request the submission of confirmatory information as regards:

- (a) the potential groundwater contamination by methyl isothiocyanate;
- (b) the assessment of the long range atmospheric transport potential of methyl isothiocyanate and related environmental risks;
- (c) the acute risk to insectivorous birds;
- (d) the long term risk to birds and mammals.

The Member States concerned shall ensure that the applicant submits to the Commission the information set out in points (a), (b), (c) and (d) by 31 May 2013.

Some other endpoints however may require the generation or submission of additional studies to be submitted to the Member States in order to ensure authorisations for use under certain conditions. The list of studies to be generated, still ongoing or available but not peer reviewed can be found in the relevant part of the EFSA Conclusions.

## **8. Information on studies with claimed data protection**

For information of any interested parties, the rapporteur Member State will keep available a document which gives information about the studies for which the data submitter has claimed data protection and which during the re-evaluation process were considered as essential with a view to annex I inclusion. This information is only given to facilitate the operation of the provisions of Article 13 of Directive 91/414/EEC in the Member States. It is based on the best information available but it does not prejudice any rights or obligations of Member States or operators with regard to its uses in the implementation of the provisions of Article 13 of the Directive 91/414/EEC and neither does it commit the Commission.

## **9. Updating of this review report**

The information in this report may require to be updated from time to time in order to take account of technical and scientific developments as well as of the results of the examination of any information referred to the Commission in the framework of Articles 7, 10 or 11 of Directive 91/414/EEC. Any such adaptation will be finalised in the Standing Committee on the Food Chain and Animal Health, in connection with any amendment of the inclusion conditions for dazomet in Annex I of the Directive.

**APPENDIX I****Identity  
DAZOMET**

<b>Common name (ISO)</b>	Dazomet
<b>Chemical name (IUPAC)</b>	3,5-dimethyl-1,3,5-thiadiazinane-2-thione or tetrahydro-3,5-dimethyl-1,3,5-thiadiazine-2-thione
<b>Chemical name (CA)</b>	tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione
<b>CIPAC No</b>	146
<b>CAS No</b>	533-74-4
<b>EEC No</b>	208-576-7 (EINECS)
<b>FAO SPECIFICATION</b>	146/TC (2001): Dazomet content not less than 940 ( $\pm$ 25) g/kg
<b>Minimum purity</b>	950g/kg
<b>Identity of relevant impurities (of toxicological, ecotoxicological and/or environmental concern)</b>	No relevant impurities
<b>Molecular formula</b>	C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> S <sub>2</sub>
<b>Molecular mass</b>	162.3 u
<b>Structural formula</b>	

**APPENDIX II**  
**List of uses supported by available data**  
**DAZOMET**

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)	% product min max (n)	water L/ha min max	kg as/ha min max		
Lettuce	Northern Europe	Basamid Granular	F	nematodes soil fungi soil insects	MG	965 ± 15 g/kg	incorporation in moist soil at depth of 20 cm	2 months before planting May-June	1	every 3 <sup>rd</sup> year	n.a.	n.a.	475 – 490	n.r.	Coverage of soil with plastic sheets for 7 weeks after treatment. Soil tillage and planting 1 week after removal of plastic sheet.
Lettuce	Northern Europe	Basamid Granular	F	seed weeds	MG	965 ± 15 g/kg	incorporation in moist soil at depth of 10 cm	2 months before planting May-June	1	every 3 <sup>rd</sup> year	n.a.	n.a.	285 – 294	n.r.	
Lettuce	Southern Europe	Basamid Granular	F	nematodes soil fungi soil insects	MG	965 ± 15 g/kg	incorporation in moist soil at depth of 20 cm	2 months before planting April-June	1	every 3 <sup>rd</sup> year	n.a.	n.a.	475 – 490	n.r.	
Lettuce	Southern Europe	Basamid Granular	F	seed weeds	MG	965 ± 15 g/kg	incorporation in moist soil at depth of 10 cm	2 months before planting April-June	1	every 3 <sup>rd</sup> year	n.a.	n.a.	285 – 294	n.r.	
Strawberries	Northern Europe	Basamid Granular	F	nematodes soil fungi soil insects	MG	965 ± 15 g/kg	incorporation in moist soil at depth of 20 cm	2 months before planting May-June	1	every 3 <sup>rd</sup> year	n.a.	n.a.	475 – 490	n.r.	

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)	% product min max (n)	water L/ha min max	kg as/ha min max		
Strawberries	Northern Europe	Basamid Granular	F	seed weeds	MG	965 ± 15 g/kg	incorporation in moist soil at depth of 10 cm	2 months before planting May-June	1	every 3 <sup>rd</sup> year	n.a.	n.a.	285 – 294	n.r.	through technique). Drip irrigation is applied during growing season (spring/ summer).  Constant coverage of soil with plastic mulch. Planting occurs directly into plastic film (planting-through technique). Drip irrigation is applied during growing season (spring/ summer).
Strawberries	Southern Europe	Basamid Granular	F	nematodes soil fungi soil insects	MG	965 ± 15 g/kg	incorporation in moist soil at depth of 20 cm	2 months before planting Apr-Sep	1	every 3 <sup>rd</sup> year	n.a.	n.a.	475 – 490	n.r.	
Strawberries	Southern Europe	Basamid Granular	F	seed weeds	MG	965 ± 15 g/kg	incorporation in moist soil at depth of 10 cm	2 months before planting Apr-Sep	1	every 3 <sup>rd</sup> year	n.a.	n.a.	285 – 294	n.r.	
Tomato (soil-grown)	Northern and Southern Europe	Basamid Granular	G	nematodes soil fungi soil insects	MG	965 ± 15 g/kg	incorporation in moist soil at depth of 20 cm	1 month before planting	1	every 3 <sup>rd</sup> year	n.a.	n.a.	475 – 490	n.r.	Coverage of the soil for 3 weeks. Soil tillage and planting of the crop 1 week after removal of the plastic sheet.
Tomato (soil-grown)	Northern and Southern Europe	Basamid Granular	G	seed weeds	MG	965 ± 15 g/kg	incorporation in moist soil at depth of 10 cm	1 month before planting	1	every 3 <sup>rd</sup> year	n.a.	n.a.	285 – 294	n.r.	

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