

ANNEX B

Metalaxyl-M

B.3 Data on application and further information

B.3.1 Data on application relevant to the active substance (Annex IIA 3.1 to 3.6)

B.3.1.1 Function (Annex IIA 3.1)

Metalaxyl-M is a fungicide.

B.3.1.2 Effects on harmful organisms (Annex IIA 3.2.1)

‘Studies have been carried out with the racemate metalaxyl; results also apply for metalaxyl-M. Thus it is extrapolated that metalaxyl-M inhibits mycelial growth and spore formation both "in vivo" and "in vitro". Foliar pathogens are inhibited only after they have penetrated the leaves.’

B.3.1.3 Translocation in plants (Annex IIA 3.2.2)

‘Metalaxyl-M is taken up very rapidly following root, stem or leaf application. Translocation of the compound is primarily acropetal (xylem). This acropetal or upward movement is a gradual and continuous process, thus providing additional fungicide activity and disease control as new plant growth occurs, or several weeks (or months) after soil treatment. Several studies showed limited basipetal (phloem) transport of metalaxyl; this also applies for metalaxyl-M.’

B.3.1.4 Fields of use (Annex IIA 3.3)

Metalaxyl-M is used in agriculture, horticulture and forestry as

- Foliar spray to control airborne disease
- Stem paint against crown rots and trunk cankers
- Soil treatment against soilborne diseases
- Seed treatment against seedborne or systemic airborne diseases
- Post-harvest dip or drench to control fruit diseases

B.3.1.5 Harmful organisms controlled and crops protected (Annex IIA 3.4.1, 3.4.2)

‘Activity of metalaxyl, and thus metalaxyl-M, is specific to fungi of the order *Peronosporales*. Target pathogens are fungi of the families *Peronosporaceae* and *Pythiaceae* (Suborder : *Mastigomycotina*, Class : *Oomycetes*), Genera : *Phytophthora*, *Plasmopara*, *Pythium*, *Bremia*, *Peronospora*, *Pseudoperonospora*, *Sclerospora* and *Sclerophthora*.

To complement the spectrum of antifungal activity of the product, and to control phenylamide resistant strains of fungi, metalaxyl-M is normally combined with one of the following partners : mancozeb, folpet, copper oxychloride or copper hydroxide and chlorothalonil.

Timing:

Phenylamide-based products should be used on a preventative, not curative or eradicated, basis. It is recommended that phenylamides are sprayed early in the season or during the period of active vegetative growth of the crop. For use as a soil treatment, application at planting is recommended. ‘

Table B.3.1.5-1 : List of pests controlled and crops protected

Crop	Pathogen
Avocado	<i>Phytophthora spp.</i>
Beans	<i>Pythium spp.</i> , <i>Peronospora spp.</i>
Berries	<i>Phytophthora spp.</i>
Carrots	<i>Phytophthora spp.</i> , <i>Pythium spp.</i> , <i>Plasmopara nivea</i>
Citrus	<i>Phytophthora spp.</i>
Cucurbits	<i>Pseudoperonospora spp.</i>
Fruiting vegetables	<i>Phytophthora spp.</i> , <i>Pythium spp.</i> , <i>Peronospora spp.</i>
Grapes	<i>Plasmopara viticola</i>
Hops	<i>Pseudoperonospora humuli</i>
Kiwi fruit	<i>Pythium spp.</i> , <i>Phytophthora spp.</i>
Leafy vegetables	<i>Pythium spp.</i> , <i>Phytophthora spp.</i> , <i>Bremia lactucae</i> , <i>Peronospora spp.</i>
Maize	<i>Sclerophthora spp.</i> , <i>Pythium spp.</i>
Oilseed rape	<i>Peronospora spp.</i>
Ornamentals	<i>Pythium spp.</i> , <i>Phytophthora spp.</i> , <i>Peronospora spp.</i>
Peas	<i>Peronospora spp.</i> , <i>Pythium spp.</i>
Pome fruit	<i>Phytophthora spp.</i> , <i>Pythium spp.</i>
Potatoes	<i>Phytophthora infestans</i> , <i>Pythium spp.</i>
Stone fruit	<i>Phytophthora spp.</i> , <i>Pythium spp.</i>
Sugar beet	<i>Phytophthora schachtii</i> , <i>Pythium spp.</i>
Sunflower	<i>Plasmopara halstedii</i> , <i>Pythium spp.</i> , <i>Peronospora spp.</i>
Tobacco	<i>Peronospora tabacina</i> , <i>Pythium spp.</i> , <i>Phytophthora spp.</i>
Tomatoes	<i>Phytophthora infestans</i>

B.3.1.6 Effects achieved - mode of action (Annex IIA 3.4.3, 3.5.1)

‘Metalaxyl, and thus metalaxyl-M, inhibits the fungus by selectively interfering with the synthesis of ribosomal RNA; more specifically, it inhibits the activity of the RNA polymerase I- template complex. Metalaxyl-M itself is the active ingredient.’

B.3.1.7 Information relative to the formation of active metabolites and degradation products (Annex IIA 3.5.2, 3.5.3)

‘ No fungicidally active metabolites of the parent compound have been found. ‘

B.3.1.8 Information on the possible occurrence of the development of resistance or cross-resistance (Annex IIA 3.6)

'Resistance in airborne *Peronosporales* to phenylamide fungicides has occurred in several countries. Products containing metalaxyl-M in combination with residual fungicides continue to give effective disease control, even in resistance situations, when used according to the recommended anti-resistance strategy. Recommendations for all metalaxyl-M-containing products are made within GIFAP / FRAC guidelines, which are accepted by all current phenylamide manufacturers, and are as follows:

- ..
- sell only prepack mixtures with residual partner fungicides for the control of airborne diseases
- ..
- include high rates of residual partner : $\frac{3}{4}$ to full rate
- ..
- intervals should not exceed 14 days
- ..
- limit to 2 - 4 sprays early in the season
- ..
- no curative or eradication applications
- ..
- no soil applications against foliar pathogens
- ..
- do not use in nurseries.

There have been very few commercial failures of phenylamide fungicides against soilborne *Phytophthora* due to resistance. A few cases of resistant *Pythium* have been documented (USA, NL). Clear cross-resistance exists between metalaxyl-M and other phenylamide fungicides. No cross-resistance has been demonstrated with other groups of fungicides active against *Peronosporales*.

B.3.2 Data on application relevant to the plant protection products (Annex IIIA 3)

B.3.2.1 Fields of use (Annex IIIA 3.1)

See B.3.1.4

B.3.2.2 Nature of the effects on harmful organisms (Annex IIIA 3.2)

See points B.3.1.2 and B.3.1.3

B.3.2.3 Pests controlled and crops protected (Annex IIIA 3.3)

Rate of application (Annex IIIA 3.4)

Concentration of active substance in material used (Annex IIIA 3.5)

Description of the method of application, type of equipment used and type and volume of diluent
per unit of area or volume (Annex IIIA 3.6)

Number and timing of applications and duration of protection afforded (Annex IIIA 3.7)

Metalaxyl-M has a large variety of uses. The tables B.3.2.3-1, B.3.2.3-2, B.3.2.3-3 present all the intended uses of mefenoxam which could be developed in the European Union.

1 - Foliar spray to control airborne disease (Table B.3.2.3-1)

The formulation RIDOMIL GOLD MZ 68 WP is representative of this type of use (WP containing 40 g/kg metalaxyl-M and 640 g/kg mancozeb). Foliar spray formulations are containing metalaxyl-M in association with another a.s. According to market information provided by the notifier, metalaxyl-M is mainly used as foliar spray on

the following crops : grapes, potatoes and vegetables (mainly tomatoes, bulb vegetables, cucumber, melon, broccoli, lettuce, spinach, globe artichoke). The risk evaluation (operator exposure, consumer exposure, impact on the environment and on the non-target species) will be based on these 3 crop types. The application rates for other crops (foliar spray as well as soil treatment) are in the same range and can be covered by these 3 crop scenarios.

2 - Stem paint against crown rots and trunk cankers (Table B.3.2.3-1)

In Italy , application is made by painting. Only the trunks of plants with symptoms are treated. A very limited number of trees/ha is treated (sporadically to 40 trees/ha).

In Spain, application is made with a hand held lance in a 0-1 m belt from the soil surface to the first branch of the tree. 5-50% (with most common being 15%) of surface/ha is treated.

Stem paint is mainly applied on citrus fruit. Other treated crops are pome fruit, kiwi, stone fruit.

3 - Soil treatment against soilborne diseases (Table B.3.2.3-2)

The formulation RIDOMIL GOLD 480 EC is representative of this type of use (EC containing 480 g/l metalaxyl-M).

- The formulation is used in orchards (citrus, apple, pear, cherry, peach, avocados, kiwifruit) . The formulation is applied with a maximum dose rate of 1 g a.s./m² around each tree. Since only the diseased trees of the orchard are treated, it is difficult to determine an application rate per hectare. (The notifier mentioned maximum application rates of 98-1500 g a.s./ha for the orchard crops (RIDOMIL GOLD 2.5 G for soil treatment uses))

Application in orchard can also be made by drip irrigation. The treatment is applied at similar dose rates, on the part of the orchard which shows soilborne disease.

- The formulation is applied on a wide variety of field crops (vegetables, melons and watermelons, strawberries, tobacco, soybean, grass , flowers) The formulation is generally applied at sowing or (pre)-planting. Application rates are generally expressed in g a.s./m² because only the soil near the plants is treated. Some application rates are expressed in g a.s./ha (hops : 400 g/ha; soybean : 500 g/ha; carrots : 600 g/ha; tobacco : 690 g/ha; strawberries : 1000 g/ha, grass : 3000 g/ha).

- The formulation is also used in confined areas (potting mix for ornamental plants, chicory forcing)

4 - Seed treatment against seedborne or systemic airborne diseases (Table B.3.2.3-3)

No annex III dossier was submitted in order to support this type of use. Some supervised field trials dealing with this type of use were submitted in order to support MRLs.

According to market information provided by the notifier, seed treatment is mainly applied on pea and sunflower.

5 - Post-harvest dip or drench to control fruit diseases

Post-harvest treatment of fruit is not supported within the EU.

Post harvest treatment for citrus occurs outside the EU (in Israel). 3 additional residue studies were completed in citrus packing houses in Israel in 1997 to support this use.

Table B.3.2.3-1 Intended uses of metalaxyl-M in the EU - Foliar Application

Crop	Country	Maximum rate per application	Maximum rate per season	Maximum N° of applications per season	Time of application	PHI in days (range)
<i>Apple</i> (stem paint)	Italy	3.5 g a.s. per tree (a few trees/ha)	7 g a.s. per tree	2		14 -28
<i>Artichoke</i> (foliar spray)	Italy	0.1 kg a.s./ha	0.3 kg a.s./ha	3		20
<i>Beans</i> (foliar spray)	Italy	0.12 kg a.s./ha	0.24 kg a.s./ha	2	first sign of symptoms	14 - 28

Crop	Country	Maximum rate per application	Maximum rate per season	Maximum N° of applications per season	Time of application	PHI in days (range)
<i>Beans, field & broad</i> (foliar spray)	Italy, UK	0.075 - 0.117 kg a.s./ha	0.15 - 0.234 kg a.s./ha	2	first sign of symptoms	14 - 56
<i>Beans, field</i> (foliar spray)	Ireland	0.1 kg a.s./ha	0.3 kg a.s./ha	3	preventative program	14
<i>Brassicas</i> (foliar spray)	Portugal	0.1 kg a.s./ha	0.3 kg a.s./ha	3	after transplanting & 6 -8 leaves	14
<i>Broccoli</i> (foliar spray)	Italy	0.1 kg a.s./ha	0.3 kg a.s./ha	3		20
<i>Brussels sprouts</i> (foliar spray)	UK, Ireland	0.1 kg a.s./ha	0.3 kg a.s./ha	3	at first sign of disease	14
<i>Cabbage</i> (foliar spray)	Italy	0.1 kg a.s./ha	0.3 kg a.s./ha	3		14 - 20
<i>Cauliflower</i> (& calabrese in UK) (foliar spray)	Italy, UK, Ireland	0.075 - 0.1 kg a.s./ha	0.15 - 0.3 kg a.s./ha	2 - 3		14 - 21
<i>Cherry</i> (stem paint)	Italy	3.5 g a.s. per tree (a few trees/ha)	7 g a.s. per tree	2		30
<i>Citrus</i> (stem paint)	Italy	3.5 g a.s. per tree (about 10% of the surface/ha is treated)	7 g a.s. per tree	2		30
<i>Citrus</i> (skirt spray)	Spain	0.35 g a.s. per tree (5-15-50% surface/ha treated)	0.7 g a.s. per tree	2		15
<i>Cucumber</i> (foliar spray)	Austria, France, Greece, Italy, Portugal, Spain	0.04 - 0.15 kg a.s./ha	0.6 kg a.s./ha	3 - 4		3 - 14
<i>Grapes</i> (foliar spray)	Austria, France, Germany, Greece, Italy, Portugal, Spain	0.12 kg a.s./ha	0.42 kg a.s./ha	2 - 4	pre and post flowering	15 - 56
<i>Hops</i> (foliar spray)	Germany	0.15 kg a.s./ha	1.2 kg a.s./ha	6	from first shoots onwards	10 (7 - 14)

Crop	Country	Maximum rate per application	Maximum rate per season	Maximum N° of applications per season	Time of application	PHI in days (range)
<i>Leek</i> (foliar spray)	(Belgium), UK	0.075 (- 0.085) kg a.s./ha	0.225 (- 0.255) kg a.s./ha	3	at first sign of disease	14
<i>Lettuce</i> (foliar spray)	Belgium, Luxemburg, Germany, Italy, Netherlands	0.1 - 0.125 kg a.s./ha.	0.3 - 0.32 kg a.s./ha.	3		14 - 28
<i>Melon</i> (foliar spray)	France, Italy, Portugal	0.094 - 0.12	0.28 - 0.36	3		3 - 21
<i>Onion</i> (foliar spray)	Austria, France, Germany, Italy, Spain, UK	0.075 - 0.15 kg a.s./ha	0.225 -0.45 kg a.s./ha	3	first sign of disease	14 - 28
<i>Ornamentals</i> (foliar spray)	Netherlands	0.036 - 0.14 kg a.s./ha	0.42 kg a.s./ha	3		
<i>Pea</i> (foliar spray)	Italy	0.117 kg a.s./ha	0.234 kg a.s./ha	2	first sign of disease	21
<i>Peach</i> (stem paint)	Italy	3.5 g a.s. per tree	7 g a.s. per tree	2		20
<i>Pepper</i> (foliar spray)	Portugal	0.1	0.3	3	after transplanting	14
<i>Potato</i> (foliar spray)	Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherland, Portugal, Spain, Sweden, UK	0.075 - 0.113 kg a.s./ha	0.375 - 0.4 kg a.s. / /ha	2 - 5	from start of disease development until before desiccation	7 - 28
<i>Horse Radish</i> (foliar spray)	Austria	0.1 kg a.s./ha	0.3 kg a.s./ha	3		30
<i>Soybean</i> (foliar spray)	Italy	0.1 kg a.s./ha	0.3 kg a.s./ha	3		35
<i>Spinach</i> (foliar spray)	Italy	0.1 kg a.s./ha	0.2 kg a.s./ha	2		20
<i>Strawberry</i> (foliar spray)	Italy	0.35 kg a.s./ha	0.7 kg a.s./ha	2	after transplanting or at end of growing period	14 - 40
<i>Tobacco</i> (foliar spray)	Austria, France,	0.08 - 0.15 kg a.s./ha	0.9 kg a.s./ha	2 - 6	active growth stage	7 - 28

Crop	Country	Maximum rate per application	Maximum rate per season	Maximum N° of applications per season	Time of application	PHI in days (range)
	Greece, Italy, Portugal					
<i>Tomato</i> (foliar spray)	France, Greece, Italy, Portugal, Spain	0.04 - 0.15 kg a.s./ha	0.6 kg a.s./ha	3 - 4	from start of first disease	3 - 28
<i>Watermelon</i> (foliar spray)	France, Italy	0.094 - 0.12	0.28 - 0.36	3		3 - 21

Table B.3.2.3-2 : Intended uses of metalaxyl-M in the EU - Soil Application

Crop	Country	Maximum rate per application	Maximum rate per season	Maximum N° of applications per season	Time of application	PHI in days (range)
<i>Apple</i> (soil application)	Italy, Spain	1 g a.s. / m ²	2 g a.s. / m ²	2	during autumn or March, beginning of vegetative growth	15 - 28
<i>Apple</i> (soil application)	Spain	via drip irrigation 1 g a.s. / tree in 0.5 m diameter circle	via drip irrigation 2 g a.s. / tree in 0.5 m diameter circle	2	during autumn or March	15 - 28
<i>Avocados</i> (soil application)	Italy	1 g a.s. / m ²	2 g a.s. / m ²	2	autumn	15
<i>Beans</i> (soil application)	Italy	0.05 - 0.1 g a.s. / m ²	0.1 - 0.2 g a.s. / m ²	2	at sowing or pre-planting	3 - 14
<i>Broccoli</i> (soil application)	Italy	0.05 - 0.1 g a.s. / m ²	0.1 - 0.2 g a.s. / m ²	2	at sowing or pre-planting	14
<i>Cabbage</i> (soil application)	EU countries	0.05 - 0.1 g a.s. / m ²	0.1 - 0.2 g a.s. / m ²	2	at sowing or pre-planting	14
<i>Carrot</i> (soil application)	France, Ireland, UK	0.24 - 0.6 kg / ha	0.6 kg / ha	1 - 2	4 - 6 weeks after drilling	30
<i>Cauliflower</i> (soil application)	Italy	0.05 - 0.1 g a.s. / m ²	0.1 - 0.2 g a.s. / m ²	2	at sowing or pre planting	14
<i>Cherry</i> (soil application)	Italy	0.5 - 1 g a.s. / m ²	1 - 2 g a.s. / m ²	2	root growth flushes	30
<i>Chicory</i>	Belgium	10 g	10g	1	before	14 - 28

Crop	Country	Maximum rate per application	Maximum rate per season	Maximum N° of applications per season	Time of application	PHI in days (range)
(root treatment)		a.s./ 100 l water for 5 tons of roots	a.s./ 100 l water for 5 tons of roots		conservation and forcing	
<i>Citrus</i> (soil application)	Italy, Spain	1 g a.s. / m ² in tree root zone.	2 g a.s. / m ² in tree root zone.	2	root growth flushes, vegetative growth begins	15 - 30
<i>Citrus</i> (soil application)	Spain	drip irrigation 1 g a.s. / m ² in tree root zone.(0.576 kg a.s./ha)	drip irrigation 2 g a.s. / m ² in tree root zone. (1.152 kg a.s./ha)	2	root growth flushes, vegetative growth begins	15 - 30
<i>Grass, turf</i> (soil application)	Italy	0.725 - 1 kg a.s./ha	2.25 - 3 kg a.s./ha	3		
<i>Hops</i> (soil application)	Belgium	0.4 kg a.s./ha	0.4 kg a.s./ha	1	beginning of plant growth	7 - 14
<i>Kiwifruit</i> (soil application)	Italy	0.5 - 1 g a.s. / m ²	1 - 2 g a.s. / m ²	2	root growth flushes	180
<i>Lettuce</i> (soil application)	Italy	0.1 g a.s. / m ²	0.2 g a.s. / m ²	2	at sowing or pre planting	14 - 28
<i>Melon</i> (soil application)	Italy	0.1 g a.s. / m ²	0.2 g a.s. / m ²	2		3 - 20
<i>Ornamentals</i> (soil application)	Germany, Italy, Netherlands	12 g a.s. /m ³ soil in potting mix, 0.1 g / m ² and up to 7.5 kg a.s. / ha (containers greenhouses only) ¹	12 g a.s. /m ³ soil in potting mix, 0.1 g / m ² and up to 7.5 g a.s. / ha (containers greenhouses only)	1		
<i>Ornamentals -Flowers</i> (soil application)	Italy	0.05 - 1 g a. I. / m ²	3 g a.s. / m ²	1 - 3	at sowing	
<i>Ornamentals Forestry</i> (soil application)	Italy, Netherlands	4 g a.s. / m ² / 7.25 g per m ³ soil in potting mix)	4 g a.s. / m ² / 7.25 g per m ³ soil in potting mix)	1	at sowing	
<i>Peach (= Stone Fruit in</i>	Italy, Spain	0.5 - 1 g a.s. / m ²	1 - 2 g a.s. / m ²	2	root growth flushes	15

Crop	Country	Maximum rate per application	Maximum rate per season	Maximum N° of applications per season	Time of application	PHI in days (range)
<i>Spain</i> (soil application)						
<i>Peach</i> (=Stone Fruit) (soil application)	Spain	via drip irrigation 1 g a.s. / m ²	via drip irrigation 2 g a.s. / m ²	2	during autumn or March	15 - 28
<i>Pear</i> (soil application)	Spain	1 g a.s. / m ²	2 g a.s. / m ²	2	during autumn or March, begining of vegetative growth	15 - 28
<i>Pear</i> (soil application)	Spain	via drip irrigation 1 g a.s. / tree in 0.5 m diameter circle	via drip irrigation 2 g a.s. / tree in 0.5 m diameter circle	2	during autumn or March	15 - 28
<i>Peppers</i> (soil application)	Italy, Spain (mainly greenhouse s in Spain)	0.1 g a.s. /m ² 0.480 kg a.s./ha	0.3 g a.s. /m ² 1.44 kg a.s./ha	3	pre and post transplanting	15
<i>Soybean</i> (soil application)	Italy	0.25 - 0.5 kg a.s./ha	0.25 - 0.5 kg a.s./ha	1	at sowing	35
<i>Stone fruit</i> (soil application)	EU countries	1 g a.s. per m ² at base of tree	2 g a.s. per m ² at base of tree	2	begin and end of vegetation period	15
<i>Strawberry</i> (soil application)	Belgium, France, Italy, Netherlands , Spain	0.18 - 1 kg a.s./ha	1 kg a.s./ha	1 - 2	pre and post planting	15 - 60
<i>Tobacco</i> (soil application)	Greece, Italy	0.48 - 0.69 kg a.s./ha	0.48 - 0.69 kg a.s./ha	1	pre plant (in transplant water)	21
<i>Watermelon</i> (soil application)	Italy	0.05 - 0.1 g a.s. / m ²	0.2 g a.s. / m ²	2	at sowing or pre planting	3

Table B.3.2.3-3 : Intended uses of metalaxyl-M in the EU - Seed treatment application

Crop	Country	No. of appl., type	Rate (kg a.s./100 kg seed)	PHI days
Beans	EU	1, seed	8.75 g - 35 g/100 kg seed	-
Beets	EU	1, seed	8.75 g - 17.5 g/100 kg seed	-
Brussel sprout	EU	1, seed	8.75 g - 70 g/100 kg seed	-
Cabbage	EU	1, seed	17.5 g - 70 g/100 kg seed	-
Carrot	EU	1, seed treatment	17.5 g - 35 g/100 kg seed	-
Cauliflower	EU	1, seed	8.75g - 70 g/100 kg seed	-
Cotton	EU	1, seed treatment	8.75 g -17.5 g/100 kg seed	-
Eggplant	EU	1, seed	8.75 g -17.5 g/100 kg seed	-
Lettuce	EU	1, seed	17.5 g - 35 g/100 kg seed	-
Maize	EU	1, seed treatment	1g - 52.5 g/100 kg seed	-
Melon	EU	1, seed treatment	8.75 g -35 g/100 kg seed	-
Onion	EU	1, seed treatment	17.5 g -35 g/100 kg seed	-
Pea	EU	1, seed treatment	8.75 g -35 g/100 kg seed	-
Peppers	EU	1, seed treatment	17.5 g - 35 g/100 kg seed	-
Radish	EU	1, seed treatment	17.5 g - 35 g/100 kg seed	-
Rape	EU	1, seed treatment	8.75 g - 70 g/100 kg seed	-
Sorghum	EU	1, seed treatment	8.75 g -52.5 g/100 kg seed	-
Spinach	EU	1, seed treatment	17.5 g - 70 g/100 kg seed	-
Sugarbeet	EU	1, seed treatment	17.5 g - 105 g/100 kg seed	-
Sunflower	EU	1, seed treatment	17.5 g - 105 g/100 kg seed	-
Tomato	EU	1, seed treatment	17.5 g - 35 g/100 kg seed	-

B.3.2.4 Minimum waiting periods or other precautions between last application and sowing or planting succeeding crops - Limitations on choice of succeeding crops (Annex IIIA 3.8)

‘Metalaxyl-M is not phytotoxic for succeeding crops’

B.3.2.5 Proposed instructions for use as printed, or to be printed, on labels (Document C)

Table B.3.2.5-1 : List of labels submitted in the documents C of the notifier

Uses	Formulation name	Formulation type
Soil application treatment	RIDOMIL GOLD 480 EC	EC containing 480 g a.s./l
Foliar spray treatment	RIDOMIL GOLD MZ 68 WP	WP containing 640 g/kg mancozeb and 40 g/kg metalaxyl-M
Seed treatment	APRON XL 350 ES	ES containing 350 g a.s./l

B.3.3 Summary of data on application

See B.3.2.3

B.3.4 Further information on the active substance (Annex IIA 3.7 to 3.9)

B.3.4.1 Recommended methods and precautions relating to handling, storage, transport, fire (Annex IIA 3.7)

This information is presented under the form of a safety data sheet pursuant to Article 27 of Council Directive 67/548/EEC.

Hazards identification : Harmful if swallowed. Risk of serious damage to eyes.
Harmful to aquatic organisms.

Handling : Avoid contact with skin, eyes and clothing. Avoid inhalation of fog and vapours. Do not eat, drink or smoke while working. In addition to the measures taken in the chemical works, like splashproof filling and measuring equipment (including local mobile vacuum cleaners), further personal protection measures are recommended to avoid possible contact with the product.
Personal protective equipment : gloves (hand protection), goggles (eye protection), heavy duty cotton or synthetic fabric working clothes, e.g. overalls (body protection). In case of heavy exposure, wear a gas mask (breathing protection). Change working clothes daily.

Storage : Store the product in closed original containers, protected from light and humidity. Store separately from feed, food and animal feeding stuffs.

Transport : Use unbreakable containers, make sure they cannot fall. Label must be in accordance with regulations.

- Classification Rail / Road RID / ADR : free
- Classification Sea IMDG-CODE : free
- Classification Air ICAO : free

Fire : *Extinguishing media* : Powder, foam, carbon dioxide or waterspray (do not use direct jet of water)

Combustion gases : Metalaxyl-M contains the elements carbon, hydrogen, oxygen and nitrogen. In the event of fire, the formation of hydrogen cyanide, carbon monoxide and nitrogen oxides must be anticipated.

Special hazards : Measures have to be taken to prevent the contaminated extinguishing agent from seeping into the ground or from spreading uncontrollably.

Protective equipment : Use respirator to protect from fumes.

B.3.4.2 Procedures for destruction or decontamination of the active substance, contaminated packaging and contaminated materials

- CGA 329351 Statement on procedures for destruction or decontamination (Rodler, 1995a)

B.3.4.2.1 Controlled incineration - Pyrolytic behaviour under controlled conditions at 800°C (Annex IIA 3.8.1)

‘The active substance metalaxyl-M can be disposed of safely by incineration in a modern incinerator, licensed to treat special contaminated waste, which fulfils the following conditions : temperature > 1200°C, minimum residence time within the incinerator : 2 seconds, equipped with a washing unit for flue gases. The ashes have to be disposed of at a suitable, approved waste disposal site. Wash water has to be disposed of via a suitable waste water treatment plant.’

‘Formation of polyhalogenated dibenzo-p-dioxins and dibenzo-furans during incineration can be excluded, as metalaxyl-M contains no halogens.’

B.3.4.2.2 Methods other than controlled incineration for disposal of the active substance, contaminated packaging and contaminated materials (Annex IIA 3.8.2)

‘No other methods are proposed to dispose of the active substance metalaxyl-M.’

‘Where larger quantities are concerned, consult the supplier.’

B.3.4.3 Methods for decontamination of water in the case of accident (Annex IIA 3.9)

- CGA 329351 Statement on emergency measures in the case of an accident (Rodler, 1995b)

‘Fire fighting water has to be contained, concentrated and decontaminated by filtration using charcoal. The water can be disposed of in a suitable sewage treatment plant or incinerated. The charcoal can be disposed of in a suitable waste incineration plant in accordance with the official regulations.’

B.3.5 Further information on the plant protection products RIDOMIL GOLD 480 EC and RIDOMIL GOLD MZ 68 WP (Annex IIIA 4)

B 3.5.1 Packagings, suitability of the packaging material to its content (Annex IIIA 4.1)

- Packaging statement for A 9408 B (RIDOMIL GOLD 480 EC) (Gnirss, 1995a)
- Packaging statement for A 9407 A (RIDOMIL GOLD MZ 68 WP) (Gnirss, 1995b)
- Packaging statement for A 9407 A (RIDOMIL GOLD MZ 68 WP) (Gnirss, 1995c)

B.3.5.1.1 Description and specification of the packaging and materials used in packaging, size, capacity, size of openings, type of closure and seals (Annex IIIA 4.1.1)

‘The packaging has been designed according to the FAO “Guidelines for the packaging and storage of pesticides”.’

Table B.3.5.1.1-1 : Packaging profile N° 0251 for RIDOMIL GOLD 480 EC (Gnirss, 1995a)

Type :	Coextruded bottle made of polyethylene/polyamide
Filling quantity :	1 litre
Dimensions :	110 mm x 70.5 mm x 198 mm
Volume :	1125 ml \pm 25 ml, bottom edge neck
Weight :	66 g
Description :	<p>Coextruded plastic bottle</p> <p>Protective cleats above and below for labels</p> <p>Packaging made of (from outside in) :</p> <p style="padding-left: 40px;">Lupolen 5021 D (XVI), nature (Share ca. 80%)</p> <p style="padding-left: 40px;">+ Bonding agent ADMER L 2100 (Mitsui) (Share ca. 10%)</p> <p style="padding-left: 40px;">+ Polyamid Grilon A 28 NZ or Ultramid C 35 Q 2 (Share min. 8%)</p> <p>Pouring spout, internal diameter (thread) 45 mm</p> <p>Coex-seam at the bottom, engraving on the bottom, material, denotation PE/PA</p> <p>Guarantee closure “TOP-CAP”, Ø 45 mm, white, made of Novolen 2300 KX (BASF)</p> <p>Inserted closure gasket made of foamed PE, coated with foil PE 0.030 mm/Polyester 0.012 mm on both sides</p>
Shipping unit :	<p>Shipping case for 10 x 1 litre</p> <p>360 mm x 225 mm x 206 mm, inside</p> <p>375 mm x 240 mm x 230 mm, outside</p> <p>double-walled corrugated board, quality 657N</p> <p>stamped out box, with internal fittings</p> <p>UN : 4G/Y 27/S/..*/ *production year</p> <p>CH-2736/CG</p>

Table B.3.5.1.1-2 : Packaging profiles N° 0087 (a) and N° 0631(b) for RIDOMIL GOLD MZ 68 WP (Gnirss, 1995b; Gnirss, 1995c)

Type :	a) Block-bottom-bag with aluminium-inner-foil
	b) Block bottom gusseted laminated paper bag, with inner aluminium lining
Filling quantity :	a) 2 x 500 g
	b) 1 kg
Dimensions :	a) block-bottom-bag : 130 mm x 85 mm x 340 mm tubular bag PVAL : 160 mm x 240 mm reel width : 350 mm
	b) 130 mm x 65 mm x 340 mm
Volume :	a) -
	b) 2.8 litres
Weight :	a) -
	b) 35 g
Description :	a) Block-bottom-bag with aluminium-inner-foil, from outside in : Kraft paper, white 50 g/m ² combination, consisting of - Kraft paper, white 50 g/m ² - alu-foil 0.009 mm - PE-coating 50 g/m ² Polyvinyl-alcohol-foil NEDI EF 210 35 µ black printed, reel-fed
	b) Block bottom gusseted laminated paper bag, with inner aluminium lining, from outside in : Kraft paper, white 50 g/m ² combination, consisting of - Kraft paper, white 50 g/m ² - alu-foil 0.009 mm - PE-coating 50 g/m ²
Shipping unit :	a) Shipping case for 10 x 2 x 500 g 480 mm x 280 mm x 280 mm, inside double-walled corrugated board (D 120), grade 654N 1 longitudinal insert 275 mm x 475 mm 4 cross inserts 275 mm x 275 mm 1 bottom insert 475 mm x 275 mm UN : 4G/X 25/S/..*/ *production year CH-2105/CG
	b) Shipping case for 10 x 1 kg 380 mm x 280 mm x 280 mm, inside double-walled corrugated board (D120), grade 654N with inserts UN : 4G/X 25/S/..*/ *production year CH-2108/CG

B.3.5.1.2 Suitability of the packaging and closures (Annex IIIA 4.1.2)

'The packaging material for RIDOMIL GOLD 480 EC has been determined and approved according to the ADR-methods 3552 to 3555'.

'The packaging material for RIDOMIL GOLD MZ 68 WP has been determined and approved according to the ADR-methods 3552 to 3555'.

The reports describing the results of aforementioned tests, were not submitted.

B.3.5.1.3 Resistance of the packaging material to its contents (Annex IIIA 4.1.3)

RIDOMIL GOLD 480 EC

- Report on resistance of packaging material (Rodler, 1995c)

After 18 weeks of storage at 30 °C, the packaging material "PE-pack with solvent barrier (polyamide)" was found to be resistant to its content.

RIDOMIL GOLD MZ 68 WP

- Report on resistance of packaging material (Rodler, 1995d)

- Report on resistance of packaging material (Rodler, 1995e)

After 18 weeks of storage at 30 °C, the packaging materials "Water soluble bag in paper/PE-pack with water vapour barrier (aluminium)" and "Box with inner bag (paper/PE-laminate with water vapour barrier (aluminium))", respectively, were found to be resistant to their content.

B.3.5.2 Procedures for cleaning application equipment and protective clothing (Annex IIIA 4.2)

- A-9408 B : Procedure for cleaning application equipment (Rodler, 1995f)

- A-9407 A : Procedure for cleaning application equipment (Rodler, 1995g)

'Clean spray equipment thoroughly immediately after use. Drain the system completely and rinse spray tank, boom and nozzles two to three times with clean water until the foam (and all traces of product) has (have) been removed.'

- Report on the effectiveness of conventional cleaning procedures for the application equipment (Rodler, 1994)

- A-9408 B : Effectiveness of the cleaning procedure for the application equipment (Rodler, 1995h)

- A-9407 A : Effectiveness of the cleaning procedure for the application equipment (Rodler, 1995i)

'The effectiveness of the conventional cleaning procedure for sprayers (rinsing twice with clean water, no use of detergents) has been tested for a solid WG (A-5852 E) and a liquid EC (A-6097 G) formulation. The carry-over to the next tank fill was determined to be less than 1 % in both cases.

The two formulations tested cover a broad range of different formulation types : solid and liquid formulations containing solid as well as liquid active substances. Based on the results which are in good agreement with each other, it can be expected that other formulations will behave similarly.'

'When A-9408 B is added to the water in the spray tank, the active substance forms an emulsion. This is analogous to the situation of A-6097 G, where also an emulsion of the active substance (propiconazole) is formed. Therefore it is predicted that the effectiveness of the cleaning procedure for A-9408 B is similar to the results found for A-6097 G.'

'When A-9407 A is added to the water in the spray tank, both active substances form a suspension. This is analogous to the situation of A-5852 E, where also a suspension (of atrazine) is formed. Therefore it is predicted that the effectiveness of the cleaning procedure for A-9407 A is similar to the results found for A-5852 E.'

B.3.5.3 Re-entry intervals, waiting periods and other precautions to protect man and animals

B.3.5.3.1 Pre-harvest intervals, re-entry intervals or withholding periods to minimize residues in crops, plants, plant products, treated areas or spaces (Annex IIIA 4.3.1)

Pre-harvest and re-entry periods of RIDOMIL GOLD 480 EC (Maier, 1995a)

Pre-harvest interval (in days) for each relevant crop :	see Table B.3.2.3-2
Re-entry period (in days) for livestock to areas to be grazed :	'The freshly treated area must not be grazed. A waiting period of one week is considered to be adequate'
Re-entry period (in hours or days) for man to crops, buildings or spaces treated :	'RIDOMIL GOLD 480 EC is applied onto or into the soil and the vapour pressure of its a.s. is low. It is therefore not necessary to define a particular re-entry period for workers'
Withholding period (in days) for animal feedingstuffs :	<i>More information is required</i>
Waiting period (in days) between application and handling treated products :	<i>More information is required</i>
Waiting period (in days) between last application and sowing or planting succeeding crops :	<i>More information is required</i>

Pre-harvest and re-entry periods of RIDOMIL GOLD MZ 68 WP (Maier, 1995b)

Pre-harvest interval (in days) for each relevant crop :	see Table B.3.2.3-1
Re-entry period (in days) for livestock to areas to be grazed :	'The freshly treated area must not be grazed. A waiting period of one week is considered to be adequate'
Re-entry period (in hours or days) for man to crops, buildings or spaces treated :	'Treated areas should not be entered before the spray deposit on leaf surfaces has dried, unless protective clothing is worn. Considering the low application rates and the favorable toxicological profile of the product, a further definition of a re-entry period for workers is not necessary.'
Withholding period (in days) for animal feedingstuffs :	<i>More information is required</i>
Waiting period (in days) between application and handling treated products :	<i>More information is required</i>
Waiting period (in days) between last application and sowing or planting succeeding crops :	<i>More information is required</i>

B.3.5.3.2 Information on any specific agricultural, plant health or environmental conditions under which the preparation may or may not be used (Annex IIIA 4.3.2)

'No environmental hazard is expected from the use of RIDOMIL GOLD 480 EC, resp. RIDOMIL GOLD MZ 68 WP. However, contamination of food and feed should be avoided. Do not contaminate water by disposal of product wastes.'

B.3.5.4 Recommended methods, precautions and handling procedures to minimize the risks relating to warehouse storage, user level storage, transport, fire - Detailed procedures for use in the event of an accident during transport, storage or use (Annexes IIIA 4.4 and 4.5)

This information is presented under the form of a safety data sheet pursuant to Article 27 of Council Directive 67/548/EEC.

RIDOMIL GOLD 480 EC

Hazards identification : Harmful if swallowed. Irritating to eyes. May cause sensitization by skin contact.
Harmful to algae.

Handling : Avoid contact with skin, eyes and clothing. Avoid inhalation of fog and vapours. Do not eat, drink or smoke while working. In addition to the measures taken in the chemical works, like splashproof filling and measuring equipment (including local mobile vacuum cleaners), further personal protection measures are recommended to avoid possible contact with the product.
Personal protective equipment : gloves (hand protection), goggles or face shield (eye protection), heavy duty cotton or synthetic fabric working clothes, e.g. overalls (body protection). In case of heavy exposure, wear a gas mask (breathing protection). Change working clothes daily.

Storage : Store the product in closed original containers, protected from light and humidity and from temperatures below -10 °C and above 35 °C.
Store separately from feed, food and stimulants. Do not store together with highly flammable products.

Transport : Use unbreakable containers, make sure they cannot fall. Label in accordance with regulations.
UN Number : 3077
· Classification Rail / Road RID / ADR : free
· Classification Sea IMDG-CODE : free
· Classification Air ICAO : free

Fire : *Extinguishing media* : Powder, foam, carbon dioxide or waterspray (do not use direct jet of water)

Combustion gases : In the event of fire, the formation of hydrogen cyanide, sulfur oxides, sulfuric acid, carbon monoxide and nitrogen oxides must be anticipated.
Combustion products are toxic and irritant.

Special hazards : Measures have to be taken to prevent the contaminated extinguishing agent from seeping into the ground or from spreading uncontrollably.

Protective equipment : Use respirator to protect from fumes.

Accidental release measures : Keep away from sources of ignition. Do not contaminate waters and sewers. Cover up product with absorptive material such as sand, soil, diatomaceous earth etc. Prevent material from spreading, e.g. by damming in with absorptive material. Collect material in specially marked, tightly closing containers. Place damaged containers in specially marked larger ones.
Clean dirty areas with carbonated or soapy water. Put washing water in containers too, to avoid any contamination of surface and ground water, water supplies and drains. Hose down the area for a prolonged period. Heavily contaminated soil layers have to be dug out down to clean soil.
Spilled product cannot be used further and must be disposed of. If safe disposal is not possible, contact the manufacturer, the dealer or the local representative and dispose of in an incinerator approved for chemicals.

First aid measures :

- General :* Remove the affected person from the danger zone to a well-ventilated room or to fresh air, and protect from undercooling.
In case of suspected poisoning : immediately call a physician.
- Ingestion :* Repeatedly administer medicinal charcoal in a large quantity of water.
Note : Never give anything by mouth to an unconscious person. Do not induce vomiting.
- Skin contact :* Remove contaminated clothing and thoroughly wash the affected parts of the body with soap and water, inclusive hair and under finger nails.
- Eye contact :* Rinse eyes with clean water for several minutes and immediately call a physician.

RIDOMIL GOLD MZ 68 WP

- Hazards identification : May cause sensitization by skin contact.
Very toxic to algae. Very toxic to fish. Toxic to daphniae.

- Handling : Avoid contact with skin, eyes and clothing. Avoid inhalation of dust. Do not eat, drink or smoke while working. In addition to the measures taken in the chemical works, like dustproof filling and measuring equipment (including local mobile vacuum cleaners), further personal protection measures are recommended to avoid possible contact with the product.
Personal protective equipment : gloves (hand protection), goggles or face-shield (eye protection), heavy duty cotton or synthetic fabric working clothes, e.g. overalls (body protection). In case of heavy exposure, wear dust mask or face-shield (breathing protection). Change working clothes daily.

- Storage : Store the product in closed original containers, protected from light and humidity and from temperatures below -10 °C and above 35 °C.
Store separately from feed, food and stimulants. Do not store together with highly flammable products.

- Transport : Use unbreakable containers, make sure they cannot fall. Label in accordance with regulations.
UN Number : 3077
· Classification Rail / Road RID / ADR : Class 9 / Cipher 12C / Kemmler Index 90 / CEFIC N° 90UMW-94 / Label 9
Proper shipping name : environmentally hazardous substance, solid, N.O.S.
Additional information : mancozeb
· Classification Sea IMDG-CODE : free
· Classification Air ICAO : free

- Fire : *Extinguishing media :* Powder, foam, carbon dioxide or waterspray (do not use direct jet of water)
- Combustion gases :* In the event of fire, the formation of hydrogen cyanide, sulfur oxides, sulfuric acid, carbon monoxide and nitrogen oxides must be anticipated.
Combustion products are toxic and irritant.
- Special hazards :* Measures have to be taken to prevent the contaminated extinguishing agent from seeping into the ground or from spreading uncontrollably.
- Protective equipment :* Use respirator to protect from fumes.

- Accidental release measures : Do not contaminate waters and sewers. Dampen solid material carefully to prevent it being blown away. Collect material in specially marked, tightly closing containers.
Place damaged containers in specially marked larger ones.
Clean dirty areas with carbonated or soapy water. Put washing water in containers too, to avoid any contamination of surface and ground water, water supplies and drains. Hose down the area for a prolonged period. Heavily contaminated soil layers have to be dug out down to clean soil.

Spilled product cannot be used further and must be disposed of. If safe disposal is not possible, contact the manufacturer, the dealer or the local representative and dispose of in an incinerator approved for chemicals.

First aid measures :

- General :* Remove the affected person from the danger zone to a well-ventilated room or to fresh air, and protect from undercooling.
In case of suspected poisoning : immediately call a physician.
- Ingestion :* Repeatedly administer medicinal charcoal in a large quantity of water.
Note : Never give anything by mouth to an unconscious person. Do not induce vomiting.
- Skin contact :* Remove contaminated clothing and thoroughly wash the affected parts of the body with soap and water.
- Eye contact :* Rinse eyes with clean water for several minutes and immediately call a physician.

B.3.5.5 Procedures for destruction or decontamination of the formulation and its packaging

- A-9408 B : Procedures for destruction of the plant protection product (Rodler, 1995j)
- A-9407 A : Procedures for destruction of the plant protection product (Rodler, 1995k)

‘Empty rinsed containers (packages) should be disposed of according to government recommended practices. When larger quantities have to be disposed of, contact the supplier.’

B.3.5.5.1 Neutralization procedures for use in the event of accidental spillages (Annex IIIA 4.6.1)

‘Regarding the toxicological as well as the physico-chemical properties of RIDOMIL GOLD 480 EC (resp. RIDOMIL GOLD MZ 68 WP), neutralization procedures for use in the event of accidental spillages are not considered to be suitable.’

B.3.5.5.2 Controlled incineration - Pyrolytic behaviour of the active substance under controlled conditions at 800° C (Annex IIIA 4.6.2)

‘RIDOMIL GOLD 480 EC (resp. RIDOMIL GOLD MZ 68 WP) can be disposed of safely by incineration in a modern incinerator, licensed to treat special contaminated waste, which fulfils the following conditions : temperature > 1200°C, minimum residence time within the incinerator : 2 seconds, equipped with a washing unit for flue gases. The ashes have to be disposed of at a suitable approved waste disposal site. Wash water has to be disposed of via a suitable waste water treatment plant.’

‘The formation of polyhalogenated dibenzo-p-dioxins and dibenzo-furans during incineration is extremely unlikely because neither the active substance(s) nor the inerts contain halogens. Nevertheless, these dioxins/furans would be completely destroyed at temperatures above 1200 °C.’

B.3.5.5.3 Methods other than controlled incineration for disposal of the plant protection product, contaminated packaging and contaminated materials (Annex IIIA 4.6.3)

‘No other methods are proposed to dispose of the product RIDOMIL GOLD 480 EC (resp. RIDOMIL GOLD MZ 68 WP)’

B.3.6 References relied on

Data on application and further information on the active substance (Annex IIA 3)

Annex point(s) 91/414/EEC	Author, title, report number, test institute, date of report Owner of the report (company or organisation) Submitted by (company or organisation) For publications: reference	Ciba file N°	GLP GEP	Published Protected
IIA 3.8	Rodler M., Statement on procedures for destruction or decontamination Ciba-Geigy Muenchwilen AG, Muenchwilen, Statement, 29.05.1995a Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351/205	no	unpublished protected
IIA 3.9	Rodler M.; Statement on emergency measures in case of an accident Ciba-Geigy Muenchwilen AG, Muenchwilen, Statement, 29.05.1995b Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351/206	no	unpublished protected

Data on application and further information on the formulation RIDOMIL GOLD 480 EC (Annex IIIA 4)

Annex point(s) 91/414/EEC	Author, title, report number, test institute, date of report Owner of the report (company or organisation) Submitted by (company or organisation) For publications: reference	Ciba file N°	GLP GEP	Published Protected
IIIA 4.1.1	Gnirrs A., Packaging statement for A-9408 B (RIDOMIL® GOLD 480 EC), Ciba-Geigy Muenchwilen Ltd., Muenchwilen, Statement, dated Aug. 07, 1995a Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-181	no	unpublished protected
IIIA 4.3	Maier W., Re-entry periods, waiting periods for livestock and environmental protection Ciba-Geigy Ltd., Basle, Statement, August 17, 1995a Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-333	no	unpublished protected
IIIA 4.2	Rodler M., Report on the Effectiveness of Conventional Cleaning Procedures for the Application Equipment Ciba-Geigy Muenchwilen Ltd, Muenchwilen, Statement, dated May 29, 1994 Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-183	no	unpublished protected
IIIA 4.1.3	Rodler M., Report on resistance of packaging material, Ciba-Geigy Muenchwilen Ltd., Muenchwilen Project Report 30130, dated Jul. 07, 1995c Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-186	yes	unpublished protected
	Rodler M., Procedure for Cleaning Application			unpublished

Annex point(s) 91/414/EEC	Author, title, report number, test institute, date of report Owner of the report (company or organisation) Submitted by (company or organisation) For publications: reference	Ciba file N°	GLP GEP	Published Protected
IIIA 4.2	Equipment, Ciba-Geigy Muenchwilten Ltd, Muenchwilten, Statement, dated May 29, 1995f Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-182	no	protected
IIIA 4.2	Rodler M., Effectiveness of the Cleaning Procedure for the Application Equipment Ciba-Geigy Muenchwilten Ltd, Muenchwilten, Statement, dated May 29, 1995h Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-184	no	unpublished protected
IIIA 4.6	Rodler M., A-9408 B: Procedures for Destruction of the Plant Protection Product Ciba-Geigy Muenchwilten Ltd., Muenchwilten, Statement, dated June 29, 1995j Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd	329351-185	no	unpublished protected

Data on application and further information on the formulation RIDOMIL GOLD MZ 68 WP (Annex IIIA 4)

Annex point(s) 91/414/EEC	Author, title, report number, test institute, date of report Owner of the report (company or organisation) Submitted by (company or organisation) For publications: reference	Ciba file N°	GLP GEP	Published Protected
IIIA 4.1.1	Gnirrs A., Packaging Statement for A-9407 A (RIDOMIL® GOLD MZ 68 WP), Ciba-Geigy Muenchwilten Ltd., Muenchwilten, Statement, dated Aug. 07, 1995b Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-166	no	unpublished protected
IIIA 4.1.1	Gnirrs A., Packaging Statement for A-9407 A (RIDOMIL® GOLD MZ 68 WP), Ciba-Geigy Muenchwilten Ltd., Muenchwilten, Statement, dated Aug. 07, 1995c Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-167	no	unpublished protected
IIIA 4.3	Maier W., Re-entry periods to protect man, waiting periods for livestock and environmental protection Ciba-Geigy Ltd., Basle, Statement, Aug. 17, 1995b Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-334	no	unpublished protected
IIIA 4.2	Rodler M., Report on the Effectiveness of the Conventional Cleaning Procedures for the Application Equipment Ciba-Geigy Muenchwilten Ltd., Muenchwilten, Statement, May 29, 1994	329351-171	no	unpublished protected

Annex point(s) 91/414/EEC	Author, title, report number, test institute, date of report Owner of the report (company or organisation) Submitted by (company or organisation) For publications: reference	Ciba file N°	GLP GEP	Published Protected
	Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.			
IIIA 4.1.3	Rodler M., Report on Resistance of Packaging Material, Ciba-Geigy Muenchwilten Ltd., Muenchwilten, Project Report 33591, dated June 12, 1995d Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-169	yes	unpublished protected
IIIA 4.1.3	Rodler M., Report on Resistance of Packaging Material, Ciba-Geigy Muenchwilten Ltd., Muenchwilten, Project Report 33589, dated June 12, 1995e Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-168	yes	unpublished protected
IIIA 4.2	Rodler M., Procedure for Cleaning Application Equipment, Ciba-Geigy Muenchwilten Ltd., Muenchwilten, Statement, May 29, 1995g Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-170	no	unpublished protected
IIIA 4.2	Rodler M., Effectiveness of the Cleaning Procedure for the Application Equipment Ciba-Geigy Muenchwilten Ltd., Muenchwilten, Statement, May 29, 1995i Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd.	329351-172	no	unpublished protected
IIIA 4.6	Rodler M., A-9407 A: Procedures for Destruction of the Plant Protection Product Ciba-Geigy Muenchwilten Ltd., Muenchwilten, Statement, dated June 29, 1995k Owned by : Ciba-Geigy Ltd. Submitted by : Ciba-Geigy Ltd	329351-173	no	unpublished protected

ANNEX B

Metalaxyl-M

Appendix A : Authorizations - Registrations

Country	Type of authorization	Crops/uses	Authorization details
Belgium	Commercial (provisional)	potato	RIDOMIL GOLD MZ 68 WP WP Reg. No. : 9103/B Issue Date : 18-03-1999 Exp. Date : 18-03-2002
United Kingdom	Commercial (provisional)	carrot	RIDOMIL GOLD 480 EC EC Reg. No. : MAFF 08811 Issue Date : - Exp. Date : -
United Kingdom	Commercial (provisional)	potato	FUBOL GOLD (= A 9407 A) WP Reg. No. : MAFF 08812 Issue Date : - Exp. Date : -
Germany	Commercial (provisional)	potato	RIDOMIL GOLD MZ 68 WP WP Reg. No. : - Issue Date : - Exp. Date : -

ANNEX B

Metalaxyl-M

Appendix B : Material Safety Data Sheets

List of Material Safety Data Sheets submitted by the notifier
Active Substance
CGA 329351 Tech. (Metalaxyl-M tech.)
Formulations
A 9408 B (RIDOMIL GOLD 480 EC)
A 9407 A (RIDOMIL GOLD MZ 68 WP)

