

ANNEX B

Florasulam

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)

Herbicide

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

Florasulam is a post-emergence herbicide which kills broadleaf weeds.

‘Florasulam is a member of the 1,5c triazolopyrimidine sulfonanilides, a class of herbicides known to inhibit the plant enzyme acetolactate synthase enzyme (ALS). The inhibition of ALS results in a number of distinctive whole plant symptoms. Growth of sensitive species is retarded within a matter of hours of application although visible effects may not be observed for several days. Symptoms appear first in the upper meristematic region of the plants as chlorosis and necrosis. The upper new leaves often take on a wilted appearance. The effects then spread to the remaining parts of the plant. In some species there is a reddening of the midrib and veins. Complete desiccation of the plant may occur in 7-10 days in ideal growing conditions but may take up to 6-8 weeks under less ideal conditions. ‘

B.3.1.3 Translocation in plants (Annex IIA 3.2.2)

‘The herbicide is taken up by roots or by foliage and regardless of route of uptake, the rate of florasulam metabolism in *G. aparine* is slow and affords ample time for parent herbicide to redistribute throughout the plant. Translocation patterns are consistent with mobility in both the xylem and the phloem. Accumulation of herbicide at primary and axillary meristems, which are primary loci for the action of sulfonanilide herbicides, probably increases the effectiveness of florasulam on *G. aparine* even further. Although florasulam has a relatively short half-life in soil, the root uptake and subsequent translocation to foliar meristems will provide some residual activity on *G. aparine*. ‘

B.3.1.4 Fields of use (Annex IIA 3.3)

Agriculture

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

Crops: winter and spring cereals including winter wheat, winter barley, winter oats, winter rye, spring wheat, spring barley, spring oats, spring rye, and triticale.

Florasulam is effective against broadleaf weeds. The primary targets are *Galium aparine* (main target), *Stellaria media*, *Matricaria* spp, *Papaver rhoeas*, volunteer oil seed rape. In addition, there are many other weeds which are listed by country in the individual biology dossiers.

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

‘Florasulam is a member of the triazolopyrimidine sulfonanilides, a class of herbicides known to inhibit the plant enzyme acetolactate synthase (ALS), also called acetohydroxyacid synthase (AHAS), which is a key enzyme in the biosynthesis of the branched chained amino acids isoleucine, leucine and valine.’

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

The active moiety is florasulam. The active substance is not converted to a metabolite or degradation product in order to exert its intended effect.

‘The selectivity of florasulam to wheat and its high level of herbicidal activity in *G. aparine* are related primarily to the difference in rates of metabolism between the two species. The half-life of florasulam in wheat is 3.5 hours, as compared to a half-life in *G. aparine* of much greater than 48 hours. In wheat, florasulam has been shown to undergo rapid metabolism to the 4-hydroxy metabolite which, in turn, is conjugated to glucose; in contrast, little degradation of florasulam was observed in *Galium*, even at 48 h after treatment. The major metabolite for all species appears to be the same, with the rate of metabolism being the discriminating factor in the observed selectivity. Although the potency of the glucose conjugate on ALS was not tested, other conjugates of this type have not shown any potential for phytotoxicity. When tested across a range of broadleaf weeds, the 4-OH metabolite was over 600 times less active than florasulam.’

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

‘Florasulam is a triazolopyrimidine whose mode of action is to inhibit acetolactase synthase enzyme (ALS) in plants. Other families of chemistries exist today which have the same mode of action, *i.e.* the sulfonylureas and the imidazolinones. Target site specific examples of resistance have been recorded in these two families in 29 dicotyledonous and 9 monocotyledonous resistant weed biotypes. The only cases of broadleaf weed resistance to ALS inhibiting herbicides reported in Europe are *Alisma plantago-aquatica* resistance to bensulfuron in Portugal (1995) and *Stellaria media* resistance to chlorsulfuron in Denmark (1991). Most cases worldwide have occurred where there has been continuous use of long residual ALS herbicides used alone, the most notable being *Kochia scoparia* in the USA and *Lolium rigidum* in Australia, which have developed resistance due to selection with sulfonylureas.

This resistance following selection with sulfonylureas has been found to be due to a change in the target site enzyme. In most cases, the sulfonylurea resistant biotypes with a resistant ALS enzyme exhibit varying levels of cross resistance to other ALS herbicides. The considerable variation in the level of resistance across and within ALS-inhibiting herbicides is likely to be due to subtly different binding by particular herbicides on the ALS enzyme and different mutations of ALS. Evidence from competitive binding studies shows that the three classes of ALS-inhibiting herbicides bind to the same or closely overlapping sites on ALS. The wide variation in target site cross resistance among biotypes with resistant ALS enzyme implies that there are a number of different functional mutations of the ALS gene. For example, on the only case published to date of resistance selected by an imidazolinone herbicide, a biotype of *Xanthium strumarium* resistant to imidazolinone herbicides at the whole plant and ALS assay level is not cross resistant to sulfonylurea and triazolopyrimidine herbicides.

Florasulam is active on broadleaf weeds and specifically targeted at *Galium aparine*, *Stellaria media* and *Matricaria spp.* There are no known examples of ALS resistant *Galium aparine* or *Matricaria spp.*, but there are two cases of ALS resistant *Stellaria media*. In order to test for cross resistance, a number of studies were established by Dow AgroSciences at their laboratories at Letcombe in the UK.’

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 B.3.1.2

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)

Depending on the EU countries, minor differences in the GAP are observed for the cereal growth stage and the application rate. The detailed GAP for each EU country were presented in the Document E-1 of the notifier.

Table.3.2.3-1 : Intended uses of florasulam

Crop	Country : Europe	Rate per application (g a.s./ha)	Maximum rate per season (g a.s./ha)	Spray concentration (g a.s./hl)	Maximum number of applications per season	Pre-harvest interval in days	Spray interval
Weeds							
Formulation type					Timing		
Winter cereals	N/S	0.5-7.5	7.5	-	1	NA	
Broadleaf weeds (mainly <i>Galium aparine</i> , <i>Stellaria media</i> , <i>Matricaria spp.</i>)					(2) : split treatment with a total rate of 7.5 g a.s./ha./season BBCH 12 to 49 (2-3 leaves to stem elongation)		6-8 weeks
SC 50 g/l							

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)

Waiting periods between last application and sowing or planting succeeding crops are as follows : In the event of crop failure, spring wheat, spring barley, spring oats, maize or ryegrass may be sown immediately.

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

Labels proposals for several EU countries (Austria, Belgium-Netherlands-Luxembourg, Denmark-Sweden, France, Germany, Greece, United Kingdom-Irish Republic, Italy, Spain) were presented in the document C of the notifier.

B.3.3 Summary of data on application

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 provisional Safety Data Sheet pursuant to Article 27 of Council Directive 67/548/EEC.

Hazards identification : Very toxic to algae

Handling : Use good personal hygiene. Wash hands and exposed skin before eating, drinking or smoking and after work.
Do not consume or store food in the work area.
Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.
Personal protection : No respiratory protection should be needed.
For brief contact, no hand protection should be needed. Use impervious gloves when prolonged or frequently repeated contact could occur.
Safety glasses should be sufficient as eye/face protection for most operations.

Storage : Store in a cool, dry, well-ventilated place in original container.
Protect from excessive heat and cold.
Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers.
Keep out of reach of children.

Transport :

- **Road, rail and barge :**

Proper shipping name :	3077, ENVIRONMENTALLY	HAZARDOUS	
	SUBSTANCE, SOLID, N.O.S.		
Truck - ADR loaded	9-12C	Empty : 9-21	Label : 9
Rail - RID loaded	9-12C	Empty : 9-21	Label : 9
Kemmler Code	90		
UN Number	3077		
Barge - ADNR loaded	9-12C	Empty : 9-21	Label : 9
Ship type	III		
- **Others :**
 - Sample shipment not allowed by mail
 - Material not classified for transport by sea
 - Material not classified for air transport

Fire : *Extinguishing media :* Water fog or fine spray; carbon dioxide; dry chemical; foam

Combustion gases : During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds.

Specific methods of fire-fighting : Keep containers cool by spraying with water. Contain run-off to prevent entry into water or drainage systems.

Protective equipment : Firefighters should wear protective clothing and use an approved

positive-pressure self-contained breathing apparatus.

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

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

‘If destruction is necessary, then controlled incineration is recommended. However, contact with the supplier should be made to evaluate the return of excess material before destruction is undertaken.’

The halogen content of florasulam is less than 60% (actual = 16%); information on the pyrolytic behaviour of the active substance is thus not required.

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)

Disposal considerations : Wash container out thoroughly. Container and washings must be disposed of safely in accordance with applicable regulations. The preferred options are to send to a licensed reclaimer or to permitted incinerators. Do not re-use the container for any purpose. Do not contaminate ponds, waterways or ditches with chemical or used container.

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

‘The following general information should be considered in the case of a spill of DE-570 :

- The material itself has low toxicity to terrestrial and aquatic animal species, but aquatic plants and algae are susceptible to its herbicidal activity.
- The technical material is a crystalline solid, so spills of unformulated material are extremely unlikely to result in gross contamination of natural waterways.
- The liquid formulated material will be packaged into UN approved containers ranging from 0.25 to 5.0 L. With DE-570's low toxicity, a spill of a single container is unlikely to result in gross contamination of waterways.
The biggest danger for a large incident comes when the formulated or semi-formulated liquid material is stored in bulk 200 L drums or bulk formulation tanks during manufacturing. Manufacturing operations will be conducted under conditions of adequate secondary containment in case of spill from a storage tank.
- DE-570 is reasonably soluble in water and is not expected to accumulate in sludge or soil. Half-lives for DE-570 observed in natural water range between 5-30 days, depending on conditions.

The following action is recommended in the case of a liquid spill of DE-570 :

- The spill should be prevented from spreading to waterways by using a solid absorbent (such as sand or a suitable proprietary absorbent material) or by physically damming/inverting the flow.
- If a significant amount of DE-570 spills into a basin of water which can be contained (such as a pond, ditch or localised groundwater), it can be removed from the water by carbon adsorption, bleach oxidation or natural degradation.
- For small spills or spills into a non-containable body of water (such as a river), it is recommended that the material is left to degrade naturally.

It is recommended that Dow AgroSciences is contacted for advice on the best method to deal with a particular spill incident.’

B.3.5 Further information on the plant protection product EF-1343 (Annex IIIA 4)

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

The following sales packages are proposed for EF-1343 :

- a) 24 x 250 mL PET
- b) 10 x 500 mL PET
- c) 20 x 500 mL PET
- d) 10 x 1 L PET

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)

Table B.3.5.1.1-1 : Description of receptacles for EF-1343

Type :	cylindrical PET bottle
Material :	polyethylene terephthalate (PET)
Manner of construction :	injection stretch blow moulded
Shape/Size :	cylindrical
Capacity :	a) 250 mL b) 500 mL c) 500 mL d) 1 L
Opening :	45 mm
Closure/seal :	screw cap with heat sealed membrane material : injection moulded HDPE
Outer case :	corrugated double wall fibreboard, glued side seam, top and bottom flaps closed with adhesive tape for a) 24 x 250 mL bottles b) 10 x 500 mL bottles c) 20 x 500 mL bottles d) 10 x 1 L bottles

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

ADR compliance was tested (ADR methods 3553, 3554, 3556 and 3560 are not applicable, nor is ISO 8317).

Table B.3.5.1.2-1 : Suitability of the receptacles for EF-1343

Receptacle type	Test method	Test conditions	Findings	UN mark	Reference
24 x 250 mL PET	ADR 3552 Drop test	1.8 m fall at -18°C	passed test	u 4G/X9/S/* n GB/0947	PIRA:KFBW/JK(2179) dd. 07/02/94
	ADR 3555 Stacking test	pile : 3 m high; 24 h at 23°C/50% R.H.	passed test		
	ADR 3558		strength properties of inner packages are not significantly altered by product		Q07
10 x 500 mL PET	ADR 3552 Drop test	1.2 m fall at -18°C	passed test	u 4G/Y7/S/* n GB/0964	PIRA:KFBW/JK(2179) dd. 07/02/94
	ADR 3555 Stacking test	pile : 3 m high; 24 h at 23°C/50% R.H.	passed test		
	ADR 3558		strength properties of inner packages are not significantly altered by product		Q07
20 x 500 mL PET	ADR 3552 Drop test	1.8 m fall at -18°C	passed test	u 4G/X14/S/* n GB/0949	PIRA:KFBW/JK(2179) dd. 07/02/94
	ADR 3555 Stacking test	pile : 3 m high; 24 h at 23°C/50% R.H.	passed test		
	ADR 3558		strength properties of inner packages are not significantly altered by product		Q07
10 x 1 L PET	ADR 3552 Drop test	1.2 m fall at -18°C	passed test	u 4G/Y16/S/* n GB/0697	TriWall Europe : MTU/0139 dd. 15/05/96
	ADR 3555 Stacking test	pile : 3 m high; 24 h at 23°C/50% R.H.	passed test		
	ADR 3558		strength properties of inner packages are not		Q07

Receptacle type	Test method	Test conditions	Findings	UN mark	Reference
			significantly altered by product		

* = last 2 digits of year of manufacture

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

- Packaging storage stability trial for DE-570 50 g/L SC herbicide EF-1343 (Turri and Olive, 1997)

After 8 weeks storage at ambient temperature and at 40°C, the PET containers were found to be satisfactory with respect to container shape. There was no evidence of deterioration of the containers under either test condition. The observed levels of base distension after 8 weeks at 40°C, were not considered detrimental to the stability of the containers and thus to safety during normal storage, transit or use.

Average mass changes after 8 weeks storage were - 0.62% (40°C) and - 0.04% (ambient) respectively. The losses are primarily due to permeation of water from EF-1343 and are not considered significant.

Conclusion : 'The packagings are resistant to EF-1343.'

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

The following label statement is proposed with respect to cleaning application equipment.

'To avoid subsequent injury to crops other than cereals, all spraying equipment must be thoroughly cleaned both inside and out, using All Clear Extra spray cleaner as follows :

1. Immediately after spraying, drain tank completely. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
2. Rinse inside of tank with clean water and flush through booms and hoses using at least one tenth of the spray tank volume. Drain tank completely.
3. Half fill tank with clean water and add All Clear Extra at the recommended rate. Agitate and then briefly flush the boom and hoses with the cleaning solution. Top up with water making sure the tank is completely full and allow to stand for 15 minutes with agitation. Flush the boom and hoses and drain tank completely.
If it is not possible to drain the tank completely, step 3 must be repeated before going onto step 4.
4. Nozzles and filters should be removed and cleaned separately with All Clear Extra solution containing 50 mL of All Clear Extra per 10 L of water.
5. Rinse the tank with clean water and flush through the boom and hoses using at least one tenth of the spray tank volume. Drain tank completely.
6. For disposal of washings, follow Code of Practice for the Safe Use of Pesticides on Farms and Holdings. Do not spray onto sensitive crop or land intended for cropping with sensitive crop.'

These proposals are based on the results of a commercial-scale tank cleaning study (Ref. GHE-P-6791 and Ref. Q14), in which a spray solution of EF-1343 was prepared in a commercial sprayer and washed out using various washing methods (All Clear Extra, water alone, water alone using a mechanical in tank rinsing aid or no rinse). The same procedure was repeated for a tank mix of EF-1343 with Alto 100SL (100 g a.s./L cyproconazole), to test whether this affected the removal of EF-1343 from the spray tank. After completion of the washing techniques the spray tank was filled with a spray solution of Betanal E (114 g a.s./L phenmedipham), a product known to have the ability to remove any remaining deposits of active substances such as DE-570 from the spray tank. The amount of florasulam in this Betanal E spray solution was determined by immunoassay and compared with the no observable effect levels (NOEL) established for various crops.

The results indicate that the 'water only' washing procedure does not provide sufficient safety margin for the most sensitive crops (chicory and carrots), although on other crops this technique would be acceptable.

Cleaning procedures for protective clothing were not addressed as such.

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

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 EF-1343

Pre-harvest interval (in days) for each relevant crop :	'No PHI between application and harvest at maturity is proposed for cereals'
Re-entry period (in days) for livestock to areas to be grazed :	'In cases where livestock may be fed immature cereal crops following crop failure, a re-entry period of 7 d is proposed'
Re-entry period (in hours or days) for man to crops, buildings or spaces treated :	'No re-entry period for man to treated crops is required'
Withholding period (in days) for animal feedingstuffs :	'In cases where livestock may be fed immature cereal crops following crop failure, a re-entry period of 7 d is proposed. No other withholding period is required.'
Waiting period (in days) between application and handling treated products :	'No waiting period is required.'
Waiting period (in days) between last application and sowing or planting succeeding crops :	'In the event of crop failure, spring wheat, spring barley, spring oats, maize or ryegrass may be sown immediately. All other crops may be sown safely at the normal rotational interval specific for the crop. In both cases, no specific cultivation is required.' See point B.6.9.

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)

'Other than the above-mentioned re-entry or waiting periods, there are no specific agricultural, plant health or environmental conditions under which the preparation may not be used.'

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 provisional Safety Data Sheet pursuant to Article 27 of Council Directive 67/548/EEC.

Hazards identification : Very toxic to algae

Handling : Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work.

Respiratory protection : For most conditions, no respiratory protection should be needed.
For emergency conditions : use an approved positive-pressure self-contained breathing apparatus.

Hand/skin protection : Wear clean, long-sleeved, body-covering clothing. Use gloves, impervious to this material, when prolonged or frequently repeated contact could occur.

For emergency conditions : use protective clothing impervious to this material. Selection of specific items will depend on operation.

Eye/face protection : Use safety glasses

Storage : Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

Transport :

- **Road/rail/inland waterway :**
 - Proper shipping name : 3082, Environmentally hazardous substance, liquid, N.O.S. (contains DE 570 5%)
 - UN 3082
 - Kemmler code : 90
 - Class 9
 - Item number 11°C
 - Label 9
- **Sea :**
 - not classified for sea
- **Air :**
 - Proper shipping name : 3082, Environmentally hazardous substance, liquid, N.O.S. (contains DE 570 5%)
 - UN 3082
 - Class 9
 - Label 9
 - Passenger instructions 914
 - Cargo instructions 911

Fire : *Extinguishing media :* Water fog or fine spray; carbon dioxide; dry chemical; foam

Combustion gases : During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds.

Specific methods of fire-fighting : Keep containers cool by spraying with water. Contain run-off to prevent entry into water or drainage systems.

Protective equipment : Firefighters should wear protective clothing and use self-contained breathing apparatus.

Emergency measures in case of an accident : EF-1343 is very toxic to algae. Do not contaminate ponds, waterways or ditches with chemical or used container.

Spillages : Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

Soak up with sand or other non-combustible absorbent material and place into containers for disposal. Contain runoff to prevent entry into water or drainage systems.

<i>Decontamination :</i>	Thorough cleaning of contaminated areas (e.g. buildings, vehicles, etc.) is recommended with water and detergent. Contain washings to ensure no further contamination of the environment. Heavily contaminated soil should be removed for disposal.
<i>Disposal :</i>	Damaged packaging, adsorbents and other materials should be incinerated at an appropriate facility.
<i>Protection :</i>	EF-1343 does not present any acute or irritation (eyes and skin) hazard, however exposure should be kept to a minimum. Bystanders must be kept out of contaminated areas and upwind of spills. Emergency personnel should wear eye protection and whole body impervious clothing (e.g. butyl rubber, nitrile styrene butadiene rubber viton and PVC are all suitable materials).
<u>First aid measures :</u>	<i>Ingestion :</i> Do not induce vomiting. Call a physician. The decision of whether to induce vomiting or not should be made by an attending physician. <i>Eye contact :</i> Irrigate immediately with water for at least 5 minutes. <i>Skin contact :</i> Wash off in flowing water or shower, use soap if available. <i>Inhalation :</i> Remove to fresh air. Consult a physician. <i>Note to physician :</i> No specific antidote. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

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

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

‘EF-1343 does not require specific neutralization. Any spilt material should be absorbed onto dry, inert material (e.g. sand) and swept up into labelled containers for disposal.’

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

‘If destruction is necessary, then incineration is recommended, however contact with the supplier should be made to evaluate the return of excess material before destruction is undertaken. Incineration (min. 1220°C for 2 seconds) must take place in a facility approved to handle chemical waste.’

The halogen content of florasulam is less than 60%; information on the pyrolytic behaviour of the active substance is thus not required.

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)

‘Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to a licensed reclaimer or to permitted incinerators. Do not re-use the container for any purpose.’

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, Test institute, Report number/Study ID, Date of report For publications: reference	Dow AgroScience s Report No.	GL P GE P	Published Protected
IIA 3.6	Brown, J G, Booth, C, Gaunt, M, A glasshouse evaluation of the susceptibility of sulfonyl urea resistant <i>Stellaria media</i> to triazolopyrimidine sulphonanilide herbicides DowElanco Europe, Letcombe Regis, Oxon, UK B93H108, October1993	GHE-P-4200	No	Unpublished Protected
IIA 3.5.3	deBoer, G J, Thornburgh, S, Cleveland, J, Ehr, R J, Comparative metabolism and phytotoxicity of XDE-570 and X528157 in wheat and weeds. DowElanco, Indianapolis, Indiana, USA None stated, October 1996	DEI 0328	No	Unpublished Protected
IIA 3.5.1	Ehr, R J, Schmitzer, P R, Gray, J A, The activity of DE-570 and soil metabolites of DE-570 on acetolactate synthase, <i>Lemna minor</i> and <i>Agrostitis palustris</i> . DowElanco Indianapolis, Indiana, USA None stated, July 1997	DEI 60598	No	Unpublished Protected
IIA 3.6	Gerwick, B C, Subramanian, M, Martin, E J, Tanguay, LD, Loney, V I, Cross-resistance in chlorsulfuron tolerant <i>Stellaria</i> and <i>Kochia</i> populations. The Dow Chemical Company, Midland, Michigan, USA None stated, July 1989	GS-2164	No	Unpublished Protected
IIA 3.6	Spencer, C, Cranstone, K, Glasshouse experiment(s) to determine if sulfonylurea resistant biotypes of <i>Stellaria media</i> vary in their sensitivity to various ALS inhibitors, and whether fluroxypyr is a potential tool in resistance management strategies - Letcombe, 1996-1997. DowElanco Europe, Letcombe Regis, Oxon, UK B96H207,September 1996	GHE-P-5575	No	Unpublished Protected

Data on application and further information on the formulation EF-1343 (Annex IIIA 3 and 4)

The following reports are quoted in Point 3: copies of these reports are not included in the submission but are available on request.

Annex point(s) 91/414/EEC	Author, Title, Test institute, Report number/Study ID, Date of report For publications: reference	Dow AgroSciences Report No.	GLP GEP	Published Protected
IIIA 3.8.4	Ballard N, EA95D5A017 - Replicated trials to evaluate the carryover potential of XDE-570 (EF-1343, 50gai/l, SC) to crops of sugar beet and winter field beans following application to the previous cereal crop in the UK - 1995-1996. DowElanco Europe, Hitchin, UK EA95D5A017/ H4795, December 1996	GHE-P-6093R	Yes	Unpublished Protected
IIIA 3.8.4	Booth, C J.G.Brown, Quantification of residues of DE-570 in field derived soils using a lentil bioassay method. Letcombe 1996 DowElanco Europe, Letcombe Regis, Oxon, UK BH96H109, February 1997	GHE-P-5582R	Yes	Unpublished Protected
IIIA 3.2.1	Brown J G, Fullick K L, Summary report of greenhouse evaluations to determine the spray drift damage potential of XDE-570 formulations EF-1343, EF-1381 and EF-1383 in comparison to Granstar and 2,4-D ethyl hexyl ester on 21 crops - Letcombe, 1997. DowElanco Europe, Letcombe Regis, Oxon, UK B97H102 A/B/C/D, April 1997a	GHE-P-6174	No	Unpublished Protected
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IIIA 3.8.2	Goodliffe J P, Cranstone K G, Assessment of the phytotoxicity of the 5-hydroxy, soil metabolite of XDE-570 to major, European rotational crops DowElanco Europe, Letcombe Regis, Oxon, UK B96H212, January 1997	GHE-P-5580	Yes	Unpublished Protected
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Y* = conducted to the spirit of GLP

ANNEX B

Florasulam

Appendix A : Material Safety Data Sheet