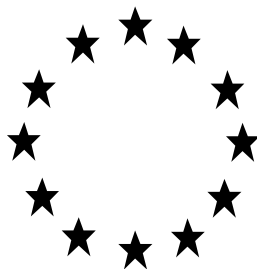


Draft Renewal Assessment Report  
under Regulation (EC) 1107/2009



**CLOPYRALID**

**Volume 3 – B.4 (PPP) – GF-1374**

RMS: Finland  
Co-RMS: Poland

May 2017

**Volume 1**

**Level 1: Statement of subject matter and purpose for which this report has been prepared and background information on the application**

**Level 2: Summary of active substance hazard and of product risk assessment**

**Level 3: Proposed decision with respect to the application**

Appendix 1: Guidance documents used in this assessment

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**Volume 2**

**Annex A: List of the tests, studies and information submitted**

**Volume 3**

**Annex B (Active Substance): Summary, evaluation and assessment of the data and information**

Annex B.1 (AS): Identity

Annex B.2 (AS): Physical and chemical properties of the active substance

Annex B.3 (AS): Data on application

Annex B.4 (AS): Further information

Annex B.5 (AS): Methods of analysis

Annex B.6 (AS): Toxicology and metabolism data

Annex B.7 (AS): Residue data

Annex B.8 (AS): Environmental fate and behaviour

Annex B.9 (AS): Ecotoxicology data

**Volume 3**

**Annex B (Plant Protection Product): Summary, evaluation and assessment of the data and information**

Annex B.1 (PPP): Identity

Annex B.2 (PPP): Physical and chemical properties of the plant protection product

Annex B.3 (PPP): Data on application and efficacy

**Annex B.4 (PPP): Further information**

Annex B.5 (PPP): Methods of analysis

Annex B.6 (PPP): Toxicology and metabolism data and assessment of risks to humans

Annex B.7 (PPP): Residue data

Annex B.8 (PPP): Environmental fate and behaviour and environmental exposure assessment

Annex B.9 (PPP): Ecotoxicology data and assessment of risks for non-target species

**Volume 4**

**Annex C: Confidential information and, where relevant, details of any task force formed for the purpose of generating tests and studies submitted**

**List of Endpoints**

**Version History**

<b>When</b>	<b>What</b>
2017/ May	DRAR- First version submitted to EFSA

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## **B.4. FURTHER INFORMATION**

### **B.4.1. SAFETY INTERVALS AND OTHER PRECAUTIONS TO PROTECT HUMANS, ANIMALS AND THE ENVIRONMENT**

The representative formulation includes a different product (GF-1374) compared to the product evaluated for the first approval (Lontrel 100 Herbicide). Information to address this point was not evaluated as part of the active approval and therefore all relevant information is provided.

#### **(a) Pre-harvest interval (in days) for each relevant crop**

For cereals, the latest timing for application is proposed as application at a maximum growth stage of BBCH 39. It is proposed that this limit for application timing based on crop growth stage is adequate and no PHI is required. Since the application is to an immature crop well before maturity, the inherent interval between application and development of the crop to adequate maturity for harvest will ensure that residues remain below MRLs without need to specify a particular PHI.

In the proposed use for permanent pasture, the proposed pre-harvest interval of treated grass or grazing treated sites is 7 days in Northern Europe (including Central Zone), and 14 days in Southern Europe; this limitation is based on fluroxypyr in the GF-1374 formulation rather than clopyralid.

#### **(b) Re-entry period (in days) for livestock, to areas to be grazed**

There is no requirement for a re-entry period for livestock to graze cereals since immature cereal plants are not normally used for this purpose. If immature wheat or barley plants are grazed due to crop failure, it is proposed that the same re-entry period used for pasture would apply. Therefore, following application of GF-1374 to cereals, a re-entry period for livestock to graze treated areas is proposed at 7 days for Northern Europe (including Central Zone) and 14 days for Southern Europe. For pasture, a re-entry period for livestock to graze treated areas is proposed at 7 days for Northern Europe (including Central Zone) and 14 days for Southern Europe. This limitation is based on fluroxypyr in the GF-1374 formulation rather than clopyralid.

#### **(c) Re-entry period (in hours or days) for man to crops, buildings or spaces treated**

Under practical conditions of use, there is no reason for workers to enter the crop shortly after treatment. The general approach of avoiding re-entry until the spray solution has dried is recommended.

**(d) Withholding period (in days) for animal feeding stuffs**

Cereal grain and straw would be used as a livestock feedstuff only at crop maturity / harvest and no further waiting period is required. For use in pasture, a withholding period of 7 days in Northern Europe (including Central Zone) and of 14 days in Southern Europe is proposed for GF-1374 prior to grazing treated sites for treated pasture. This limitation is based on fluroxypyr in the GF-1374 formulation rather than clopyralid.

**(e) Waiting period (in days) between application and handling of treated products**

No waiting period is required since products will not normally be handled until after harvest and a post-harvest treatment is not intended. In the event of earlier contact with treated products, the general approach of avoiding handling until the spray solution has dried is recommended.

**(f) Waiting period (in days) between last application and sowing or planting succeeding crops**

Crops are not normally grown in rotation with established pasture as it is grown as a perennial crop. For GF-1374 use in cereals, it is proposed that no further waiting period is required for sowing or planting succeeding crops after normal crop maturity and harvest. The latest growth stage for application is BBCH 39. Based on the GAPs proposed in this submission, the interval between application at BBCH 39 and normal crop maturity and harvest is expected to be adequate to ensure that residues are not found in rotational crops in significant levels. However, for some crops that can be injured by very low levels of clopyralid residue in the soil, a planting restriction may be required due to the potential for crop injury. Such restrictions are not based on a need to ensure that residue levels in crops remain below MRLs, but instead are based on avoiding trace-level residues in soil that can injure crops that are highly sensitive to this herbicide. These restrictions are addressed in the biology dossier and on the product labels.

Crops that can be sown in the same year as a crop treated with GF-1374 is harvested: Cereals, oilseed rape, field beans, grass and vegetable brassicas as transplants.

Crops that can be sown in the calendar year following treatment with GF-1374: Cereals, oilseed rape, field beans, grass, linseed, peas, sugar beet, potatoes, maize, clover (for use in grass/clover mixtures), carrots and vegetable brassicas as transplants.

In the event of a crop failure in the spring with GF-1374 only the following crops may be planted: spring wheat, spring barley, spring oats, maize or ryegrass.

**Information on specific conditions under which the preparation may or may not be used**

Avoid overlapping spray bouts.

Do not use any plant material treated with GF-1374 for composting or mulching.

Do not use manure from animals fed on crops treated with GF-1374 for composting.

Do not spray when crops are under stress from cold, drought, pest damage, nutrient deficiency etc.

Do not roll or harrow 7 days before or after application.

Take extreme care to avoid drift onto crops and non-target plants outside the target area.

GF-1374 residues in plant tissues (including manure and digestate) which have not completely decayed may affect succeeding susceptible crops. If treated crop remains have not fully decayed by the time of planting following crops then avoid planting: peas, beans and other legumes; carrots and other umbellifers; potatoes; lettuce and other compositae; glasshouse and protected crops.

GF-1374 should not be applied if rainfall is anticipated within 1 hour of application being completed.

**B.4.2. RECOMMENDED METHODS AND PRECAUTIONS**

Refer to the safety data sheet for GF-1374 provided in Document M-CP.

**B.4.3. EMERGENCY MEASURES IN CASE OF AN ACCIDENT****(a) Containment of spillages**

Refer to the safety data sheet for GF-1374 provided in Document M-CP.

**(b) Decontamination of areas, vehicles and buildings**

Refer to the safety data sheet for GF-1374 provided in Document M-CP.

**(c) Disposal of damaged packaging, absorbents and other materials**

Refer to the safety data sheet for GF-1374 provided in Document M-CP.

**(d) Protection of emergency workers and residents, including bystanders**

Refer to the safety data sheet for GF-1374 provided in Document M-CP.

**(e) First aid measures**

Refer to the safety data sheet for GF-1374 provided in Document M-CP.

#### B.4.4. PACKAGING, COMPATIBILITY OF THE PLANT PROTECTION PRODUCT WITH PROPOSED PACKAGING MATERIALS

The following table provides a justification for the use of different information to that evaluated for the Active Approval.

Data Point/Information	Rationale
CP 4.4. Packaging, Compatability of the packaging with the plant protection product	GF-1374 was not the representative formulation for the active approval of clopyralid. Therefore all relevant information to address this point is provided.

The representative formulation includes a different product (GF-1374) compared to the product evaluated for the first approval (Lontrel 100 Herbicide). Information to address this point was not evaluated as part of the active approval and therefore all relevant information is provided.

#### Packaging

Packaging material, capacity, size of opening, type of closure and any other relevant information is presented below.

Specific Requirement:	
Material:	PET bottles and jerricans F-HDPE bottles and jerricans
Capacity:	PET bottles/jerricans: 0.25 litre, 0.5 litre, 1 litre, 2 litre, 3 litre, 5 litre, 10 litre, 15 litre. 0.25 litre bottles, may or may not be packed, 12 x 0.25 litre or 24 x 0.25 litre to an outer corrugated fibreboard case. 0.5 litre bottles, may or may not be, packed 10 x 0.5 litre or 20 x 0.5 litre to an outer corrugated fibreboard case. 1 litre bottles, may or may not be, packed 10 x 1 litre to an outer corrugated fibreboard case. 2 litre bottles, may or may not be, packed 8 x 2 litre to an outer corrugated fibreboard case. 3 litre bottles, may or may not be, packed 6 x 3 litre to an outer corrugated fibreboard case. 5 litre bottles, may or may not be, packed 2 x 5 litre, 3 x 5 litre or 4 x 5 litre to an outer corrugated fibreboard case 10 litre jerrican may or may not be, packed 2 x 10 litre to an outer corrugated fibreboard case. 15 litre jerrican, may or may not be, packed 2x15 litre in an outer corrugated fibreboard case.



	<p>F-HDPE bottles/jerricans: 0.25 litre, 0.5 litre, 1 litre, 2 litre, 3 litre, 5 litre, 10 litre, 15 litre, 20 litre.</p> <p>0.25 litre bottles may or may not be packed 20 x 0.25 litre to an outer corrugated fibreboard case.</p> <p>0.5 litre bottles, may or may not be, packed 20 x 0.5 litre to an outer corrugated fibreboard case.</p> <p>1 litre bottles, may or may not be, packed 10 x 1 litre or 12 x 1 litre to an outer corrugated fibreboard case.</p> <p>2 litre bottles, may or may not be, packed 8 x 2 litre to an outer corrugated fibreboard case.</p> <p>3 litre bottles, may or may not be, packed 6 x 3 litre to an outer corrugated fibreboard case.</p> <p>5 litre bottles, may or may not be, packed 2 x 5 litre, 3 x 5 litre or 4 x 5 litre to an outer corrugated fibreboard case</p> <p>10 litre jerrican may or may not be, packed 2 x 10 litre to an outer corrugated fibreboard case.</p> <p>15 litre jerrican, may or may not be, packed 2x15litre to an outer corrugated fibreboard case</p> <p>20 litre jerrican may or may not be packed to an outer corrugated fibreboard case.</p>
Type of closure and size of opening:	<p>Closure: Screw cap with induction seal, bore seal, compression seal or vented seal.</p> <p>Size of opening (which could be used for PET or F-HDPE bottles/jerricans):</p> <p>45mm – from 0.25L up to 2L bottles</p> <p>50mm – from 0.25L up to 2L bottles</p> <p>60mm – for 15L and 20L jerricans</p> <p>61mm – for 15L and 20L jerricans</p> <p>63mm – for 3L, 5L, 10L, 15L and 20L bottles/jerricans</p>
Refillable/returnable	No

The packaging complies with ADR regulations having been tested using the ADR test methods appropriate to the pack type and material and classification of the contents, and an appropriate UN certificate issued.

#### Compatibility of the Packaging with the Plant Protection Product

<b>Report:</b>	CP 4.4/1 CP 2.7/3 and 2.8.2/1, Kendall, P.A. (2008)
<b>Title:</b>	GF-1374 (80 g/L clopyralid, 2.5g/L florasulam, 100 g.a.e/L fluroxypyrmeptyl) Two Years Ambient Stability in and Compatibility with PET Bottle Packaging
<b>Document No:</b>	05-678-G
<b>GLP</b>	Yes

<b>Report:</b>	CP, 4.4./2 CP2.7/3, Elliott, T, (2016)
<b>Title:</b>	GF-1374: Two Year Ambient Shelf-life in F-HDPE Packaging

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<b>Document No:</b>	NAFST-13-164
<b>GLP</b>	Yes

In Vol 3 B.2 CP physical and chemical properties were performed with the packaging material (storage stability).

Containers tested as part of the two year storage stability study indicated that GF-1374 is compatible with PET and F-HDPE. Permeability, mass loss, and other visual observation indicated that the containers are resistant to GF-1374.

***Storage Conditions:***

Stability of the container and its content has been tested for 2 years at ambient temperature in PET. Stability of the container and its content has been tested for 2 year at ambient temperature in F-HDPE.

***Methodology***

Clopyralid, florasulam and fluroxypyr-meptyl analysis were carried out using method DAS-AM-05-004. Visual observations were used to study the effect of the formulation on the container and closure material and container pour out.

***Summary of Findings***

After two years ambient storage in PET bottles, the appearance of the GF-1374 was unchanged. After one year ambient in F-HDPE bottles, the appearance of the GF-1374 was unchanged.

There were no significant dimensional changes in the PET bottles after two years ambient storage.

There were no significant dimensional changes in the F-HDPE bottles after two year ambient storage.

There was no significant change in mass of either the emptied PET and F-HDPE bottles or their closures.

***Conclusion***

Clopyralid, florasulam, and fluroxypyr meptyl active contents of GF-1374 emulsifiable concentrate (EC) are stable when stored in PET and F-HDPE.

Physical properties of GF-1374 stored in PET and F-HDPE are not changed to an extent that would adversely affect product application or safety.

It is concluded that GF-1374 has satisfactory stability and compatibility with PET packaging after two years storage at ambient and is recommended for commercial use. It is also concluded that GF-1374 has satisfactory stability and compatibility with F-HDPE packaging after two year at ambient is recommended for commercial use.

**B.4.5. PROCEDURES FOR DESTRUCTION OR DECONTAMINATION OF THE PLANT PROTECTION PRODUCT AND ITS PACKAGING**

The representative formulation includes a different product (GF-1374) compared to the product evaluated for the first approval (Lontrel 100 Herbicide). Information to address this point was not evaluated as part of the active approval and therefore all relevant information is provided.

**B.4.5.1. Neutralisation procedure**

GF-1374 does not require specific neutralisation. Any spilt material should be absorbed onto dry, inert material (e.g. sand) and swept up into labelled containers for disposal.

**B.4.5.2. Controlled incineration**

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 (minimum 1220°C for 2 seconds) must take place in a facility approved to handle chemical waste.

As the halogen content is <60% there is no need for a pyrolysis study.

**B.4.6. REFERENCES RELIED ON**

Data Point	Author(s)	Year	Title Company Report No. Source (where different from company) Date GLP or GEP status Published or not	Vertebrate study Y/N	Data protection claimed Y/N	Justification if data protection is claimed	Owner	Previous evaluation
CP 2.7/3 CP 2.8.2/1	Kendall, P.A.	2008	GF-1374 (80g/L clopyralid, 2.5g/L florasulam, 100g.a.e/L fluroxypyr-meptyl) Two Years Ambient Stability in and Compatibility with PET Bottle Packaging Dow AgroSciences (NZ) Ltd., New Plymouth, New Zealand DAS Report No: 05-678-G 19.3.2008 GLP/GEP (Y/N): Y Published (Y/N): N	No	Yes	Product data submitted with an application for renewal of authorisation under Article 43 of the Regulation – containing at least one active considered under AIR2 onwards.	DAS	Submitted for the purpose of renewal
CP 2.7/3 CP 2.8.2/1 CP 2.8.6/1	Elliott, T.	2016	GF-1374: Two Year Ambient Shelf-life in F-HDPE Packaging Dow AgroSciences LLC, Indianapolis, Indiana, USA DAS Report No: NAFST-13-164 13.6.2016 GLP/GEP (Y/N): Y Published (Y/N): N	No	Yes	Product data submitted with an application for renewal of authorisation under Article 43 of the Regulation – containing at least one active considered under AIR2 onwards.	DAS	Submitted for the purpose of renewal

**B.4.7. APPENDIX – SAFETY DATA SHEET FOR GF-1374****SAFETY DATA SHEET****DOW AGROSCIENCES LIMITED**

Safety Data Sheet according to Reg. (EU) No 2015/830

**Product name:** GF-1374 EC Herbicide**Revision Date:** 22.09.2015**Version:** 3.2**Print Date:** 22.09.2015

DOW AGROSCIENCES LIMITED encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier****Product name:** GF-1374 EC Herbicide**1.2 Relevant identified uses of the substance or mixture and uses advised against****Identified uses:** Plant Protection Product**1.3 Details of the supplier of the safety data sheet****COMPANY IDENTIFICATION**

DOW AGROSCIENCES LIMITED

LATCHMORE COURT

BRAND STREET

HITCHIN

England

SG5 1NH

UNITED KINGDOM

**Customer Information Number:**[SDSQuestion@dow.com](mailto:SDSQuestion@dow.com)**1.4 EMERGENCY TELEPHONE NUMBER****24-Hour Emergency Contact:** 0031 115 694 982**Local Emergency Contact:** 00 31 115 69 4982**SECTION 2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008:**

Acute toxicity - Category 4 - Inhalation - H332

Skin irritation - Category 2 - H315

Eye irritation - Category 2 - H319

Aspiration toxicity - Category 1 - H304

Acute aquatic toxicity - Category 1 - H400

Chronic aquatic toxicity - Category 1 - H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

Product name: GF-1374 EC Herbicide

Revision Date: 22.09.2015

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## 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

Hazard pictograms



Signal word: DANGER

### Hazard statements

- H332 Harmful if inhaled.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H304 May be fatal if swallowed and enters airways.  
H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statements

- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P331 Do NOT induce vomiting.  
P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

### Supplemental information

- EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Contains Hydrocarbons, C10-C13, aromatics, <1% naphthalene

## 2.3 Other hazards

No data available

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

Product name: GF-1374 EC Herbicide

Revision Date: 22.09.2015

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This product is a mixture.

CASRN / EC-No. / Index-No.	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
CASRN 81406-37-3 EC-No. 279-752-9 Index-No. 607-272-00-5	—	13.9%	fluoroxypyr-meptyl (ISO)	Aquatic Acute - 1 - H400 Aquatic Chronic - 1 - H410
CASRN 1702-17-6 EC-No. 216-935-4 Index-No. 607-231-00-1	—	7.7%	clopyralid (ISO)	Eye Dam. - 1 - H318
CASRN 145701-23-1 EC-No. Not available Index-No. 613-230-00-7	—	0.2%	Florasulam (ISO)	Aquatic Acute - 1 - H400 Aquatic Chronic - 1 - H410
CASRN not available EC-No. 922-153-0 Index-No. —	01-2119451097-39	> 40.0 - < 50.0 %	Hydrocarbons, C10-C13, aromatics, <1% naphthalene	Asp. Tox. - 1 - H304 Aquatic Chronic - 2 - H411
CASRN 1118-92-9 EC-No. 214-272-5 Index-No. —	—	> 10.0 - < 20.0 %	N,N- Dimethyloctanamid e	Skin Irrit. - 2 - H315 Eye Dam. - 1 - H318
CASRN 26264-08-2 EC-No. 247-557-8 Index-No. —	01-2119560592-37	< 5.0 %	Benzenesulfonic acid, dodecyl-, calcium salt	Acute Tox. - 4 - H302 Skin Irrit. - 2 - H315 Eye Irrit. - 2 - H319

Product name: GF-1374 EC Herbicide

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CASRN Not Available EC-No. 918-811-1 Index-No. –	01-2119463583-34	< 5.0 %	Hydrocarbons, C10, aromatics, <1% naphthalene	STOT SE - 3 - H338 Asp. Tox. - 1 - H304 Aquatic Chronic - 2 - H411
CASRN 91-20-3 EC-No. 202-049-5 Index-No. 601-052-00-2	–	< 1.0 %	Naphthalene	Acute Tox. - 4 - H302 Carc. - 2 - H351 Aquatic Acute - 1 - H400 Aquatic Chronic - 1 - H410

If present in this product, any not classified components disclosed above for which no country specific OEL value(s) is(are) indicated under Section 8, are being disclosed as voluntarily disclosed components.

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice. If breathing is difficult, oxygen should be administered by qualified personnel.

**Skin contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**Eye contact:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.

**Ingestion:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**4.2 Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

### 4.3 Indication of any immediate medical attention and special treatment needed



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Product name: GF-1374 EC Herbicide

Revision Date: 22.09.2015

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**Notes to physician:** Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome). Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. The decision of whether to induce vomiting or not should be made by a physician. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

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## SECTION 5. FIREFIGHTING MEASURES

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### 5.1 Extinguishing media

**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Unsuitable extinguishing media:** Do not use direct water stream. May spread fire.

### 5.2 Special hazards arising from the substance or mixture

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Sulfur oxides. Nitrogen oxides. Hydrogen fluoride. Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

### 5.3 Advice for firefighters

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

Product name: GF-1374 EC Herbicide

Revision Date: 22.09.2015

Version: 3.2

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep upwind of spill. Ventilate area of leak or spill. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**6.2 Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

**6.3 Methods and materials for containment and cleaning up:** Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

**6.4 Reference to other sections:** References to other sections, if applicable, have been provided in the previous sub-sections.

## SECTION 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling:** Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**7.2 Conditions for safe storage, including any incompatibilities:** Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

**7.3 Specific end use(s):** Refer to product label.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
fluoroxypyr-meptyl (ISO)	Dow IHG	TWA	10 mg/m <sup>3</sup>
clopyralid (ISO)	Dow IHG	TWA	10 mg/m <sup>3</sup>
Florasulam (ISO)	GB EH40		
Naphthalene	ACGIH	TWA	10 ppm
	ACGIH	TWA	Absorbed via skin
	Dow IHG	TWA	10 ppm
	Dow IHG	TWA	Absorbed via skin
	Dow IHG	STEL	15 ppm
	Dow IHG	STEL	Absorbed via skin
	91/322/EEC	TWA	50 mg/m <sup>3</sup> 10 ppm



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RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

## 8.2 Exposure controls

**Engineering controls:** Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

### Individual protection measures

**Eye/face protection:** Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

#### Skin protection

**Hand protection:** Use chemical resistant gloves classified under Standard EN374:

Protective gloves against chemicals and micro-organisms. Examples of preferred

glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL").

Styrene/butadiene rubber. Viton. Examples of acceptable glove barrier materials

include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Neoprene.

Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl").

When prolonged or frequently repeated contact may occur, a glove with a protection

class of 4 or higher (breakthrough time greater than 120 minutes according to EN

374) is recommended. When only brief contact is expected, a glove with a protection

class of 1 or higher (breakthrough time greater than 10 minutes according to EN 374)

is recommended. NOTICE: The selection of a specific glove for a particular

application and duration of use in a workplace should also take into account all

relevant workplace factors such as, but not limited to: Other chemicals which may be

handled, physical requirements (cut/puncture protection, dexterity, thermal protection),

potential body reactions to glove materials, as well as the instructions/specifications

provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material.

Selection of specific items such as face shield, boots, apron, or full body suit will

depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

### Environmental exposure controls

See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	Liquid.
Color	Yellow to brown

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Odor	Aromatic
Odor Threshold	No test data available
pH	2.49 CIPAC MT 75 (1% aqueous suspension)
Melting point/range	Not applicable
Freezing point	No test data available
Boiling point (760 mmHg)	No test data available
Flash point	> 100 °C Pensky-Martens Closed Cup ASTM D 93
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Not applicable to liquids
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	No test data available
Relative Vapor Density (air = 1)	No test data available
Relative Density (water = 1)	1.0399 at 20 °C / 4 °C Digital Density Meter (Oscillating Coil)
Water solubility	No test data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	none below 400 degC
Decomposition temperature	No test data available
Kinematic Viscosity	7.8 cSt at 40 °C
Explosive properties	No
Oxidizing properties	No
<b>9.2 Other information</b>	
Molecular weight	No data available
Surface tension	38.1 mN/m at 25 °C

NOTE: The physical data presented above are typical values and should not be construed as a specification.

## SECTION 10. STABILITY AND REACTIVITY

**10.1 Reactivity:** No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability:** Thermally stable at typical use temperatures.

**10.3 Possibility of hazardous reactions:** Polymerization will not occur.

**10.4 Conditions to avoid:** Some components of this product can decompose at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

**10.5 Incompatible materials:** Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

**10.6 Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited

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to: Carbon monoxide. Carbon dioxide. Hydrogen fluoride. Nitrogen oxides. Sulfur oxides. Toxic gases are released during decomposition.

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## SECTION 11. TOXICOLOGICAL INFORMATION

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*Toxicological information appears in this section when such data is available.*

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product:

LD50, Rat, 3,378 mg/kg Estimated.

##### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product:

LD50, Rat, male and female, > 5,000 mg/kg

##### Acute inhalation toxicity

Mist may cause severe irritation of the upper respiratory tract (nose and throat) and lungs. Prolonged excessive exposure to mist may cause serious adverse effects, even death. For narcotic effects: No relevant data found.

As product:

LC50, Rat, female, 4 Hour, dust/mist, 3.35 mg/l Estimated.

#### Skin corrosion/irritation

Brief contact may cause moderate skin irritation with local redness. Effects may be slow to heal.

#### Serious eye damage/eye irritation

May cause moderate eye irritation.  
May cause slight corneal injury.

#### Sensitization

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

#### Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

#### Specific Target Organ Systemic Toxicity (Repeated Exposure)



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For the major component(s):

In animals, effects have been reported on the following organs:

Lung.

Gastrointestinal tract.

Thyroid.

Urinary tract.

Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

For the minor component(s):

In animals, effects have been reported on the following organs:

Kidney.

#### **Carcinogenicity**

For the active ingredient(s): Did not cause cancer in laboratory animals.

#### **Teratogenicity**

Clopyralid caused birth defects in test animals, but only at greatly exaggerated doses that were severely toxic to the mothers. No birth defects were observed in animals given clopyralid at doses several times greater than those expected during normal exposure. For the active ingredient(s): Fluroxypyr 1-methylheptyl ester. Has been toxic to the fetus in laboratory animals at doses toxic to the mother.

#### **Reproductive toxicity**

In animal studies, active ingredient did not interfere with reproduction.

#### **Mutagenicity**

For the active ingredient(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

#### **Aspiration Hazard**

May be fatal if swallowed and enters airways.

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## **SECTION 12. ECOLOGICAL INFORMATION**

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*Ecotoxicological information appears in this section when such data is available.*

### **12.1 Toxicity**

#### **Acute toxicity to fish**

Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in the most sensitive species).

LC50, *Oncorhynchus mykiss* (rainbow trout), flow-through test, 96 Hour, 7.1 mg/l, OECD Test Guideline 203 or Equivalent

#### **Acute toxicity to aquatic invertebrates**

EC50, *Daphnia magna* (Water flea), static test, 48 Hour, 6.9 mg/l, OECD Test Guideline 202 or Equivalent

#### **Acute toxicity to algae/aquatic plants**

ErC50, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, Biomass, 3.1 mg/l, OECD Test Guideline 201 or Equivalent

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ErC50, Lemna gibba, 7 d, Growth rate inhibition, 0.42 mg/l

ErC50, diatom Navicula sp., 72 Hour, Biomass, 1.7 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to Above Ground Organisms**

Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

oral LD50, Colinus virginianus (Bobwhite quail), > 2250mg/kg bodyweight.

oral LD50, Apis mellifera (bees), 48 Hour, > 86.7µg/bee

contact LD50, Apis mellifera (bees), 48 Hour, > 200µg/bee

**Toxicity to soil-dwelling organisms**

LC50, Eisenia fetida (earthworms), 14 d, 248.21 mg/kg

**12.2 Persistence and degradability**

**fluoroxypyr-meptyl (ISO)**

**Biodegradability:** Material is not readily biodegradable according to OECD/EEC guidelines.

10-day Window: Fail

**Biodegradation:** 32 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301D or Equivalent

**Theoretical Oxygen Demand:** 2.2 mg/mg

**Stability in Water (1/2-life)**

, half-life, 454 d

**clopyralid (ISO)**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

**Biodegradation:** 5 - 10 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301B or Equivalent

**Theoretical Oxygen Demand:** 0.71 mg/mg

**Stability in Water (1/2-life)**

Hydrolysis, pH 4 - 9, Stable

**Photodegradation**

**Test Type:** Half-life (direct photolysis)

**Florasulam (ISO)**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

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Biodegradation: 2 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B or Equivalent

Theoretical Oxygen Demand: 0.85 mg/mg

**Biological oxygen demand (BOD)**

Incubation Time	BOD
	0.012 mg/mg

Stability in Water (1/2-life)  
, > 30 d

Photodegradation  
Atmospheric half-life: 1.82 Hour  
Method: Estimated.

**Hydrocarbons, C10-C13, aromatics, <1% naphthalene**

**Biodegradability:** For similar material(s): Biodegradation may occur under aerobic conditions (in the presence of oxygen). Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

**N,N-Dimethyloctanamide**

**Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.  
10-day Window: Pass  
**Biodegradation:** > 80 %  
**Exposure time:** 28 d  
**Method:** OECD Test Guideline 301F or Equivalent

**Benzenesulfonic acid, dodecyl-, calcium salt**

**Biodegradability:** For similar material(s): Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.  
10-day Window: Pass  
**Biodegradation:** 95 %  
**Exposure time:** 28 d  
**Method:** OECD Test Guideline 301E or Equivalent

**Hydrocarbons, C10, aromatics, <1% naphthalene**

**Biodegradability:** Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability).

**Naphthalene**

**Biodegradability:** Material is expected to be readily biodegradable.

**12.3 Bioaccumulative potential****fluoroxypyr-methyl (ISO)**



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Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).  
 Partition coefficient: n-octanol/water(log Pow): 5.04 Measured  
 Bioconcentration factor (BCF): 26 Oncorhynchus mykiss (rainbow trout) Measured

**clopyralid (ISO)**

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).  
 Partition coefficient: n-octanol/water(log Pow): -2.63  
 Bioconcentration factor (BCF): < 1 Fish Measured

**Florasulam (ISO)**

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).  
 Partition coefficient: n-octanol/water(log Pow): -1.22  
 Bioconcentration factor (BCF): 0.8 Fish 28 d Measured

**Hydrocarbons, C10-C13, aromatics, <1% naphthalene**

Bioaccumulation: No data available for this product. For similar material(s):  
 Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

**N,N-Dimethyloctanamide**

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).  
 Partition coefficient: n-octanol/water(log Pow): 2.59 at 23 °C

**Benzenesulfonic acid, dodecyl-, calcium salt**

Bioaccumulation: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).  
 Partition coefficient: n-octanol/water(log Pow): 6.78 estimated

**Hydrocarbons, C10, aromatics, <1% naphthalene**

Bioaccumulation: No data available for this product. For similar material(s):  
 Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

**Naphthalene**

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).  
 Partition coefficient: n-octanol/water(log Pow): 3.3 Measured  
 Bioconcentration factor (BCF): 40 - 300 Fish 28 d Measured

**12.4 Mobility in soil****fluoroxypyr-meptyl (ISO)**

Expected to be relatively immobile in soil (Koc > 5000).  
 Partition coefficient(Koc): 6200 - 43000

**clopyralid (ISO)**

Potential for mobility in soil is very high (Koc between 0 and 50).  
 Partition coefficient(Koc): 4.9

**Florasulam (ISO)**

Potential for mobility in soil is very high (Koc between 0 and 50).  
 Partition coefficient(Koc): 4 - 54

**Hydrocarbons, C10-C13, aromatics, <1% naphthalene**

No relevant data found.

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**N,N-Dimethyloctanamide**

No relevant data found.

**Benzenesulfonic acid, dodecyl-, calcium salt**

No relevant data found.

**Hydrocarbons, C10, aromatics, <1% naphthalene**

No relevant data found.

**Naphthalene**

Potential for mobility in soil is medium (Koc between 150 and 500).

Partition coefficient(Koc): 240 - 1300 Measured

**12.5 Results of PBT and vPvB assessment****fluoroxypyr-methyl (ISO)**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**clopyralid (ISO)**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**Florasulam (ISO)**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**Hydrocarbons, C10-C13, aromatics, <1% naphthalene**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**N,N-Dimethyloctanamide**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**Benzenesulfonic acid, dodecyl-, calcium salt**

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

**Hydrocarbons, C10, aromatics, <1% naphthalene**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**Naphthalene**

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

**12.6 Other adverse effects****fluoroxypyr-methyl (ISO)**

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

**clopyralid (ISO)**

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This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

**Florasulam (ISO)**

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

**Hydrocarbons, C10-C13, aromatics, <1% naphthalene**

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

**N,N-Dimethyloctanamide**

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

**Benzenesulfonic acid, dodecyl-, calcium salt**

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

**Hydrocarbons, C10, aromatics, <1% naphthalene**

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

**Naphthalene**

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**13.1 Waste treatment methods**

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

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**SECTION 14. TRANSPORT INFORMATION**

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**Classification for ROAD and Rail transport (ADR/RID):**

- |                                  |   |
|----------------------------------|---|
| <b>14.1 UN number</b>            | UN 3082   |
| <b>14.2 Proper shipping name</b> | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Fluroxypyr, Clopyralid) |



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14.3 Class	9
14.4 Packing group	III
14.5 Environmental hazards	Fluroxypyr, Clopyralid
14.6 Special precautions for user	Hazard Identification Number: 90

**Classification for SEA transport (IMO-IMDG):**

14.1 UN number	UN 3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Fluroxypyr, Clopyralid)
14.3 Class	9
14.4 Packing group	III
14.5 Environmental hazards	Fluroxypyr, Clopyralid
14.6 Special precautions for user	EmS: F-A, S-F
14.7 Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

14.1 UN number	UN 3082
14.2 Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(Fluroxypyr, Clopyralid)
14.3 Class	9
14.4 Packing group	III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	No data available.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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**SECTION 15. REGULATORY INFORMATION**

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**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH Regulation (EC) No 1907/2006

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This product contains only components that have been either pre-registered, registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH). The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer's/user's responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

**Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.**

Listed in Regulation: ENVIRONMENTAL HAZARDS

Number in Regulation: E1

100 t

200 t

#### 15.2 Chemical Safety Assessment

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

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### SECTION 16. OTHER INFORMATION

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**Full text of H-Statements referred to under sections 2 and 3.**

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008**

Acute Tox. - 4 - H332 - On basis of test data.

Skin Irrit. - 2 - H315 - On basis of test data.

Eye Irrit. - 2 - H319 - On basis of test data.

Asp. Tox. - 1 - H304 - Calculation method

Aquatic Acute - 1 - H400 - On basis of test data.

Aquatic Chronic - 1 - H410 - On basis of test data.

#### Revision

Identification Number: 101189121 / A293 / Issue Date: 22.09.2015 / Version: 3.2

DAS Code: GF-1374

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

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**Legend**

91/322/EEC	Europe. Commission Directive 91/322/EEC on establishing indicative limit values
Absorbed via skin	Absorbed via skin
ACGIH	USA, ACGIH Threshold Limit Values (TLV)
Dow IHG	Dow Industrial Hygiene Guideline
GB EH40	UK, EH40 WEL - Workplace Exposure Limits
STEL	Short term exposure limit
TWA	Time weighted average

**Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

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