

Material group	7745	Page 1 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017
Safety data sheet according to EU Reg. 1907/2006 as amended		Supersedes September 2014

## SAFETY DATA SHEET

# FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG

Revision: Sections containing a revision or new information are marked with a ♣.

### ♣ SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1. **Product identifier** ..... **FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG**  
**Contains folpet**
- 1.2. **Relevant identified uses of the substance or mixture and uses advised against** ..... Can be used as fungicide only.
- 1.3. **Details of the supplier of the safety data sheet** **CHEMINOVA A/S**, a subsidiary of FMC Corporation  
 Thyborønvej 78  
 DK-7673 Harbøre  
 Denmark  
[SDS.Ronland@fmc.com](mailto:SDS.Ronland@fmc.com)
- 1.4. **Emergency telephone number**  
Company ..... +45 97 83 53 53 (24 h; for emergencies only)
- Medical emergencies:
- |                                     |  |
|-------------------------------------|--|
| Austria: +43 1 406 43 43            | Netherlands: +31 30 274 88 88                                |
| Belgium: +32 70 245 245             | Norway: +47 22 591300  |
| Bulgaria: +359 2 9154 409           | Poland: +48 22 619 66 54                                     |
| Cyprus: 1401                        | +48 22 619 08 97   |
| Czech Republic: +420 224 919 293    | Portugal: 808 250 143 (in Portugal only)                     |
| +420 224 915 402                    | +351 21 330 3284   |
| Denmark: +45 82 12 12 12            | Romania: +40 21318 3606                                      |
| France: +33 (0) 1 45 42 59 59       | Slovakia: +421 2 54 77 4 166                                 |
| Finland: +358 9 471 977             | Slovenia: +386 41 650 500                                    |
| Greece: 30 210 77 93 777            | Spain: +34 91 562 04 20                                      |
| Hungary: +36 80 20 11 99            | Sweden: +46 08-331231  |
| Ireland (Republic): +352 1 809 2166 | 112  |
| Italy: +39 02 6610 1029             | Switzerland: 145   |
| Lithuania: +370 523 62052           | United Kingdom: 0870 600 6266 (in the UK only)               |
| +370 687 53378                      | U.S.A. & Canada: +1 800 / 331-3148 (ProPharma)               |
| Luxembourg: +352 8002 5500          | All other countries: +1 651 / 632-6793 (ProPharma - Collect) |

### ♣ SECTION 2: HAZARDS IDENTIFICATION

- 2.1. **Classification of the substance or mixture** Acute inhalation toxicity: Category 4 (H332)  
 Eye irritation: Category 2 (H319)

Material group	7745	Page 2 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

Sensitisation – skin: Category 1B (H317)  
 Carcinogenicity: Category 2 (H351)  
 Hazards to the aquatic environment, acute: Category 1 (H400)  
 chronic: Category 3 (H412)

WHO classification ..... Class U (Unlikely to present acute hazard in normal use)

Health hazards ..... The product may have harmful effects by inhalation. It may cause hypersensitivity by skin contact. It has irritating properties.

Folpet is suspected of causing cancer.

Environmental hazards ..... The product is very toxic to aquatic organisms.

## 2.2. Label elements

*According to EU Reg. 1272/2008 as amended*

Product identifier ..... Folpet 60% w/w + Dimethomorph 11.3% w/w WG  
 Contains folpet

Hazard pictograms (GHS07, GHS08, GHS09)



Signal word ..... Warning

Hazard statements

H317 ..... May cause an allergic skin reaction.  
 H319 ..... Causes serious eye irritation.  
 H332 ..... Harmful if inhaled.  
 H351 ..... Suspected of causing cancer.  
 H410 ..... Very toxic to aquatic life with long lasting effects.

Supplementary hazard statement

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

Precautionary statements

P261 ..... Avoid breathing dust.  
 P264 ..... Wash hands thoroughly after handling.  
 P280 ..... Wear protective gloves, protective clothing and eye protection.  
 P305+P351+P338 ..... IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P312 ..... Call a POISON CENTER or doctor/physician if you feel unwell.  
 P501 ..... Dispose of contents/container as hazardous waste.

2.3. Other hazards ..... Excessive dust formation may pose a dust explosion hazard.

None of the ingredients in the product meets the criteria for being PBT or vPvB.

Material group	7745	Page 3 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

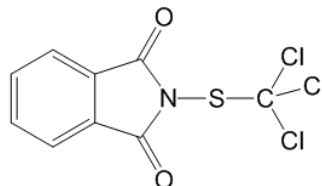
### ♣ SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1. **Substances** ..... The product is a mixture, not a substance
- 3.2. **Mixtures** ..... See section 16 for full text of hazard statements.

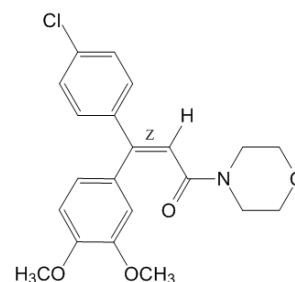
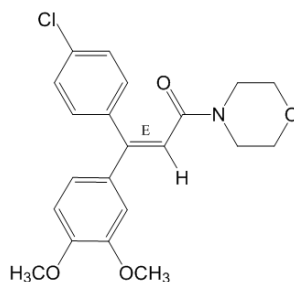
#### Active ingredients

<b>Folpet</b> .....	Content: 60% by weight
CAS name .....	1H-Isoindole-1,3(2H)-dione, 2-[(trichloromethyl)thio]-
CAS no. ....	133-07-3
IUPAC name .....	N-(Trichloromethylthio)phthalimide
ISO name/EU name .....	Folpet
EC no. (EINECS no.) .....	205-088-6
EU index no. ....	613-045-00-1
Classification of the ingredient .....	Acute inhalation toxicity: Category 4 (H332) Eye irritation: Category 2 (H319) Sensitisation – skin: Category 1B (H317) Carcinogenicity: Category 2 (H351) Hazards to the aquatic environment, acute: Category 1 (H400)

Structural formula .....



<b>Dimethomorph</b> .....	Content: 11% by weight
CAS name .....	2-Propen-1-one, 3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)-1-(4-morpholinyl)-
CAS no. ....	110488-70-5
IUPAC name .....	(E,Z)-4-[3-(4-Chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl]-morpholine
ISO name .....	Dimethomorph
EU name(s) .....	Dimethomorph
EC no. ....	4-(3-(4-Chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)-morpholine
EU index no. ....	ELINCS no.: 404-200-2
Classification of the ingredient .....	613-102-00-0
Structural formula .....	Hazards to the aquatic environment, chronic: Category 2 (H411)



Material group	7745	Page 4 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

<u>Reportable ingredients</u>	Content (% w/w)	CAS no.	EC no. (EINECS no.)	Classification
Kaolin	17	1332-58-7	310-194-1	Not classified
Sodium alkyl naphthalenesulphonate-formaldehyde condensate	4	577773-56-9	None	Eye Irrit. 2 (H319)
Lignosulfonic acid, sodium salt, sulfomethylated	4	68512-34-5	None	Eye Irrit. 2 (H319)
Citric acid Reg. no. 01-2119457026-42	2	77-92-9	201-069-1	Eye Irrit. 2 (H319)
Aromatic hydrocarbons, C10-13, reaction products with branched nonene, sulfonated, sodium salts Reg. no. 01-2119980591-31	Max. 2	1258274-08-6	None	Skin Irrit. 2 (H315) Eye Dam. 1 (H318)
Quartz	max. 0.2	14808-60-7	238-878-4	Not classified

#### SECTION 4: FIRST AID MEASURES

##### 4.1. Description of first aid measures

Inhalation .....	If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.
Skin contact .....	Immediately remove contaminated clothing and footwear. Flush skin with much water. Wash with water and soap. See physician if irritation persists.
Eye contact .....	Immediately rinse eyes with much water or eyewash solution, occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and rinse again. Get medical attention if irritation persists.
Ingestion .....	Let the exposed person rinse mouth and drink several glasses of water or milk, but not induce vomiting. If vomiting does occur, let him/her rinse mouth and drink several glasses of fluid again. Get medical attention immediately.

##### 4.2. Most important symptoms and effects, both acute and delayed

In animal studies on similar products, irregular respiration and other non-specific signs of toxicity were seen after oral administration.

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

Immediate medical attention is required in case of ingestion.  
 It may be helpful to show this safety data sheet to physician.

Material group	7745	Page 5 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

Notes to physician .....

A specific antidote for exposure to this material is not known. Gastric lavage and/or administration of activated charcoal can be considered. After decontamination, treatment of exposure should be directed at the control of symptoms and the clinical condition.

#### SECTION 5: FIRE-FIGHTING MEASURES

- 5.1. **Extinguishing media** ..... Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams.
- 5.2. **Special hazards arising from the substance or mixture** ..... The essential breakdown products are volatile, toxic, irritant, malodorous and inflammable compounds such as nitrogen oxides, hydrogen chloride, sulphur dioxide, carbon monoxide, carbon dioxide and various chlorinated organic compounds.
- 5.3. **Advice for firefighters** ..... Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. **Personal precautions, protective equipment and emergency procedures** ..... It is recommended to have a predetermined plan for the handling of spills. Empty, closable vessels for the collection of spills should be available.
- In case of large spill (involving 10 tonnes of the product or more):
1. use personal protection equipment; see section 8
  2. call emergency telephone no.; see section 1
  3. alert authorities.
- Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill this may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and rubber boots.
- Stop the source of the spill immediately if safe to do so. Keep unprotected persons away from the spill area. Avoid and reduce dust formation as much as possible, if appropriate by moistening. Remove sources of ignition.
- 6.2. **Environmental precautions** ..... Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.
- 6.3. **Methods and materials for containment and cleaning up** ..... It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping. See GHS (Annex 4, Section 6).

Material group	7745	Page 6 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

Use non-sparking tools and equipment. If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should be swept up immediately or preferably vacuumed up using equipment with high efficiency final filter. Clean area with much water and industrial detergent. Absorb wash liquid onto an absorptive material such as universal binder, attapulgate, bentonite or other absorbent clays and collect in suitable containers. The used containers should be properly closed and labelled.

Large spills which soak into the ground should be dug up and transferred to suitable containers.

Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal.

#### 6.4. Reference to other sections .....

See subsection 7.1. for fire prevention.  
 See subsection 8.2. for personal protection.  
 See section 13 for disposal.

### ♣ SECTION 7: HANDLING AND STORAGE

#### 7.1. Precautions for safe handling ....

Like most organic powders, the substance can form explosive mixtures with air. Avoid dust formation and take precautionary measures against static discharge. Use explosion protected equipment. Keep away from sources of ignition.

In an industrial environment it is important to avoid all personal contact with the product, if possible by using closed systems with remote system control. The material should be handled by mechanical means as much as possible. Adequate ventilation or local exhaust ventilation is required. The exhaust gases should be filtered or treated otherwise. For personal protection in this situation, see section 8.

For its use as a pesticide, first look for precautions and personal protection measures on the officially approved label on the packaging or for other official guidance or policy in force. If these are lacking, see section 8.

Remove contaminated clothing immediately. Wash thoroughly after handling. Before removing gloves, wash them with water and soap. After work, take off all work clothes and footwear. Take a shower, using water and soap. Wear only clean clothes when leaving job. Wash protective clothing and protective equipment with water and soap after each use.

Do not discharge to the environment. Do not contaminate water when disposing of equipment wash waters. Collect all waste material and

Material group	7745	Page 7 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.

**7.2. Conditions for safe storage, including any incompatibilities**

The product is stable under normal conditions of warehouse storage.

Keep in tightly closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. A warning sign reading "POISON" is recommended. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

**7.3. Specific end use(s) .....**

The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

**♣ SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

Personal exposure limits

To our knowledge, personal exposure limits have not been established for the active ingredients in this product.

		Year	
<b>Kaolin</b>	ACGIH (USA) TLV	2015	2 mg/m <sup>3</sup> , respirable fraction of the aerosol
	OSHA (USA) PEL	2015	15 mg/m <sup>3</sup> , total dust
			5 mg/m <sup>3</sup> , respirable fraction
	EU, 2000/39/EC as amended	2009	Not established
	Germany, MAK	2014	Not established
	HSE (UK) WEL	2011	2 mg/m <sup>3</sup> , respirable dust
<b>Crystalline silica (quartz)</b>	ACGIH (USA) TLV	2015	TWA 0.025 mg/m <sup>3</sup> , respirable fraction of the aerosol
	OSHA (USA) PEL	2015	TWA total dust: <u>30 mg/m<sup>3</sup></u>
			% SiO <sub>2</sub> + 2
			Respirable dust: <u>250 mppcf</u> or <u>10 mg/m<sup>3</sup></u>
			% SiO <sub>2</sub> + 5      % SiO <sub>2</sub> + 2
	EU, 2000/39/EC as amended	2009	Not established
	Germany, MAK	2014	Not established
	HSE (UK) WEL	2011	8-hr TWA: 0.1 mg/m <sup>3</sup> , respirable

However, personal exposure limits defined by local regulations may exist and must be observed.

**Folpet**

DNEL, oral .....	0.1 mg/kg bw/day
PNEC, aquatic environment .....	6.2 ng/l

Material group	7745	Page 8 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

#### Dimethomorph

DNEL, dermal ..... 0.15 mg/kg bw/day  
 PNEC, aquatic environment ..... 2 µg/l

#### 8.2. Exposure controls .....

When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping systems non-hazardous before opening.

The precautions mentioned below are primarily meant for handling of the undiluted product and for preparing the spray solution, but can be recommended for spraying as well.

In cases of incidental high exposure, maximal personal protection may be necessary, such as respirator, face mask, chemical resistant coveralls.



#### Respiratory protection

In the event of an accidental discharge of the material which produces a heavy vapour or dust, workers must put on officially approved respiratory protection equipment with a universal filter type including particle filter.



#### Protective gloves .....

Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown. Generally, however, the use of protective gloves will give only partial protection against dermal exposure. Small tears in the gloves and cross-contamination can easily occur. It is recommended to limit the work to be done manually and to change the gloves regularly.



#### Eye protection .....

Wear safety glasses or face shield. It is recommended to have an eye wash fountain immediately available in the workplace when there is a potential for eye contact.



#### Other skin protection

Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of excessive or prolonged exposure, coveralls of barrier laminate may be required.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on physical and chemical properties

Appearance ..... Beige/greyish solid (granules)



Material group	7745	Page 9 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

Odour .....	Slight, sweet odour
Odour threshold .....	Not determined
pH .....	1% dilution in water: 5.12
Melting point/freezing point .....	Not determined
Initial boiling point and boiling range	Not determined
Flash point .....	Not determined
Evaporation rate .....	Not determined
Flammability (solid/gas) .....	Not highly flammable
Upper/lower flammability or explosive limits .....	Not determined
Vapour pressure .....	<b>Folpet</b> : $2.0 \times 10^{-5}$ Pa at 25°C $4.4 \times 10^{-4}$ Pa at 45°C Dimethomorph : $0.97 - 1.0 \times 10^6$ Pa
Vapour density .....	Not determined
Relative density .....	Not determined
Solubility(ies) .....	Bulk density: 0.73 g/cm <sup>3</sup> Tap density: 0.76 g/cm <sup>3</sup> Solubility of <b>folpet</b> at 25°C in: toluene 26.3 g/l heptane 0.45 g/l water 0.80 mg/l Folpet is not stable in water. Half-life time in water is 0.7 hour at pH 7 and 25°C. Solubility of E-isomer of <b>dimethomorph</b> at 20°C in: acetone 84.1 g/l n-hexane 0.076 g/l water 0.0472 g/l Solubility of Z-isomer of <b>dimethomorph</b> at 20°C in: acetone 16.3 g/l n-hexane 0.036 g/l water 0.0107 g/l
Partition coefficient n-octanol/water	<b>Folpet</b> : $\log K_{ow} = 3.0$ at 20°C E-isomer of <b>dimethomorph</b> : $\log K_{ow} = 2.63$ at 20°C Z-isomer of <b>dimethomorph</b> : $\log K_{ow} = 2.73$ at 20°C
Autoignition temperature .....	Not auto-flammable
Decomposition temperature .....	Folpet decomposes starting at 184°C.
Viscosity .....	Not determined
Explosive properties .....	Not explosive
Oxidising properties .....	Not oxidising

## 9.2. Other information

Miscibility .....	The product is dispersible in water.
-------------------	--------------------------------------

## ♣ SECTION 10: STABILITY AND REACTIVITY

10.1. <b>Reactivity</b> .....	To our knowledge, the product has no special reactivities.
10.2. <b>Chemical stability</b> .....	The product is stable during normal handling and storage at ambient temperatures.

Material group	7745	Page 10 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

- 10.3. **Possibility of hazardous reactions** None known.
- 10.4. **Conditions to avoid** ..... Heating of the product will evolve harmful and irritant vapours.
- 10.5. **Incompatible materials** ..... None known.
- 10.6. **Hazardous decomposition products** See subsection 5.2.

#### ♣ SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1. **Information on toxicological effects** \* = Based on available data, the classification criteria are not met.

##### Product

Acute toxicity .....	The product is not considered as harmful by ingestion, inhalation or dermal contact. * However, it should always be treated with the usual care of handling chemicals. The acute toxicity is estimated as:
Route(s) of entry	
- ingestion	LD <sub>50</sub> , oral, rat: > 2000 mg/kg
- skin	LD <sub>50</sub> , dermal, rat: > 2000 mg/kg
- inhalation	LC <sub>50</sub> , inhalation, rat: > 5 mg/l/4 h
Skin corrosion/irritation .....	May be mildly irritating to skin. *
Serious eye damage/irritation .....	The product may be mildly to moderately irritating to eyes (method OECD 405).
Respiratory or skin sensitisation ...	The product may be sensitising to skin.
Germ cell mutagenicity .....	The product contains no ingredients known to be mutagenic. *
Carcinogenicity .....	The product contains folpet which is suspected of being carcinogenic.
Reproductive toxicity .....	The product contains no ingredients found to have adverse effects on reproduction. *
STOT – single exposure .....	To our knowledge, specific effects after single exposure have not been observed. *
STOT – repeated exposure .....	The following was measured on the active ingredient <b>folpet</b> : Target organ: no specific target organ NOEL: 1000 ppm (45 - 59 mg/kg bw/day) in a 90-day rat study. At this dose level decreased body weight was observed (method Dir. 87/302/EEC Part B). *  The following is found for the active ingredient <b>dimethomorph</b> : Target organ: liver In a 90-day rat study minor effects (increased liver weight in females) were observed at a LOAEL of 73 mg/kg bw/day (EU method B 26). *

Material group	7745	Page 11 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

Aspiration hazard ..... The product does not present an aspiration pneumonia hazard. \*

Symptoms and effects, acute and delayed Possibly allergic reactions. In animal studies, irregular respiration and other non-specific signs of toxicity were seen after oral administration.

#### Folpet

Toxicokinetics, metabolism and distribution

Folpet is absorbed rapidly following oral administration. It is widely distributed in the body and rapidly metabolised and excreted. Bioaccumulation is not expected.

Acute toxicity .....

Folpet is harmful by inhalation. The acute toxicity is measured as:

Route(s) of entry     - ingestion  
                               - skin  
                               - inhalation

LD<sub>50</sub>, oral, rat: > 2000 mg/kg \*  
 LD<sub>50</sub>, dermal, rat: > 2000 mg/kg \*  
 LC<sub>50</sub>, inhalation, rat: 1.89 mg/l/4 h

Skin corrosion/irritation .....

Not irritating to skin. \*

Serious eye damage/irritation .....

Moderately irritating to eyes.

Respiratory or skin sensitisation ...

Skin sensitising.

#### Dimethomorph

Toxicokinetics, metabolism and distribution

Dimethomorph is rapidly absorbed following oral administration. It is widely distributed in the body with highest concentration found in the liver. Metabolism is extensive. Excretion is rapid as well, almost completely within one day. There is no evidence for accumulation.

Acute toxicity .....

The substance is not harmful by inhalation, in contact with skin or if swallowed. \* The acute toxicity is measured as:

Route(s) of entry     - ingestion  
                               - skin  
                               - inhalation

LD<sub>50</sub>, oral, rat: 3900 mg/kg (method OECD 401)  
 LD<sub>50</sub>, dermal, rat: > 5000 mg/kg (method OECD 402)  
 LC<sub>50</sub>, inhalation, rat: > 4.24 mg/l/4 h (method OECD 403)

Skin corrosion/irritation .....

The substance is not irritating to skin (method OECD 404). \*

Serious eye damage/irritation .....

The substance is not irritating to eyes (method OECD 405). \*

Respiratory or skin sensitisation ...

The substance was found not to be a sensitiser in guinea pigs (method OECD 406). \*

#### Sodium alkylphthalenesulphonate-formaldehyde condensate

Acute toxicity .....

The substance is not considered harmful by single exposure. \*

Route(s) of entry     - ingestion  
                               - skin  
                               - inhalation

LD<sub>50</sub>, oral, rat: > 5000 mg/kg  
 LD<sub>50</sub>, dermal, rat: not available  
 LC<sub>50</sub>, inhalation, rat: not available

Material group	7745	Page 12 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

Skin corrosion/irritation .....	May be slightly irritating to skin. *
Serious eye damage/irritation .....	Irritating to eyes.
STOT – single exposure .....	Inhalation of dust can cause irritation of airways. It is not clear if the criteria for classification are met.

*Lignosulfonic acid, sodium salt, sulfomethylated*

Acute toxicity .....	The substance is not considered as harmful by single exposure. *
Route(s) of entry	
- ingestion	LD <sub>50</sub> , oral, rat: not available
- skin	LD <sub>50</sub> , dermal, rat: not available
- inhalation	LC <sub>50</sub> , inhalation, rat: not available
Serious eye damage/irritation .....	Causes serious eye irritation.

*Aromatic hydrocarbons, C10-13, reaction products with branched nonene, sulfonated, sodium salts*

Acute toxicity .....	The substance is not considered as harmful by single exposure. *
Route(s) of entry	
- ingestion	LD <sub>50</sub> , oral, rat: 2000 - 5000 mg/kg (method OECD 401)
- skin	LD <sub>50</sub> , dermal, rat: > 2000 mg/kg (method similar to OECD 402)
Skin corrosion/irritation .....	Irritating to skin (method OECD 404).
Serious eye damage/irritation .....	Severely irritating to eyes (method OECD 437).
Respiratory or skin sensitisation ...	Not sensitising to skin (method OECD 406). *

*Citric acid*

Acute toxicity .....	The substance is not harmful by inhalation, by ingestion or in contact with skin. * The acute toxicity is measured as:
Route(s) of entry	
- ingestion	LD <sub>50</sub> , oral, rat: 5400 mg/kg (method similar to OECD 401)
- skin	LD <sub>50</sub> , dermal, rat: > 2000 mg/kg (method OECD 402)
- inhalation	LC <sub>50</sub> , inhalation, rat: not available
Skin corrosion/irritation .....	Mildly irritating to skin (method OECD 404). *
Serious eye damage/irritation .....	Moderately irritating to eyes (method OECD 405).
Respiratory or skin sensitisation ...	To our knowledge, indications of allergenic properties have not been reported. *

*Quartz (crystalline silica)*

Acute toxicity .....	The substance is not considered harmful by single exposure. *
----------------------	---

Material group	7745	Page 13 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

Carcinogenicity .....	The consensus among a number of international agencies is that a positive association exists between crystalline silica exposure and lung cancer.
STOT – single exposure .....	Inhalation of dust can cause irritation of airways. Brief exposures to crystalline silica at concentrations 10 to 100 mg/m <sup>3</sup> produced persistent pulmonary inflammatory responses in animal tests. *
STOT – repeated exposure .....	Repeated exposure causes silicosis, a pulmonary disease.

## SECTION 12: ECOLOGICAL INFORMATION

- 12.1. **Toxicity** ..... The product is very toxic to fish and may be toxic to aquatic invertebrates and plants. It is not considered as harmful to birds, insects and soil macro- and microorganisms.

The ecotoxicity measured on the active ingredients is:			<b>Folpet</b>	<b>Dimethomorph</b>
- Fish	Rainbow trout ( <i>Oncorhynchus mykiss</i> )	96-h LC <sub>50</sub>	0.233 mg/l	3.4 mg/l
		60-day NOEC		0.056 mg/l
- Invertebrates	Brown trout ( <i>Salmo trutta</i> )	96-h LC <sub>50</sub>	0.098 mg/l	
		48-h EC <sub>50</sub>	> 1.46 mg/l	> 10.6 mg/l
	Daphnids ( <i>Daphnia magna</i> )	21-day NOEC	0.31 µg/l	0.1 mg/l
- Algae	Green algae ( <i>Scenedesmus subspicatus</i> )	72-h IC <sub>50</sub>	> 10 mg/l	24.4 mg/l
- Birds	Bobwhite quail ( <i>Colinus virginianus</i> )	LD <sub>50</sub>	> 2510 mg/kg	> 2000 mg/kg
- Earthworms	<i>Eisenia foetida</i>	LC <sub>50</sub>	> 1000 mg/kg soil	> 1000 mg/kg soil
- Insects	Honeybee ( <i>Apis mellifera</i> )	LD <sub>50</sub> , oral	> 236 µg/bee	32.4 µg/bee
		LD <sub>50</sub> , contact	> 200 µg/bee	102 µg/bee

- 12.2. **Persistence and degradability** .... **Folpet** is not stable in the environment. All major metabolites are readily degraded as well. Primary degradation half-lives are less than one day.

**Dimethomorph** is moderately persistent in the environment. Primary degradation half-lives vary with circumstances, but are generally a few to several months in aerobic water and soil.

The product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water treatment plants.

- 12.3. **Bioaccumulative potential** ..... See section 9 for octanol-water partition coefficients.

**Folpet** has a very small potential to bioaccumulate.

Bioaccumulation of **dimethomorph** is not expected due to log K<sub>ow</sub> < 3.

Material group	7745	Page 14 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

- 12.4. **Mobility in soil** ..... Mobility of **folpet** in soil could not be determined because of high instability.
- Under normal conditions **dimethomorph** is moderately mobile in the environment.
- 12.5. **Results of PBT and vPvB assessment** ..... None of the ingredients meets the criteria for being PBT or vPvB.
- 12.6. **Other adverse effects** ..... Other relevant hazardous effects in the environment are not known.

#### ♣ SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1. **Waste treatment methods** ..... Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste.
- Disposal of waste and packagings must always be in accordance with all applicable local regulations.
- Disposal of product ..... According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this is not feasible, the material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.
- Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.
- Disposal of packaging ..... It is recommended to consider possible ways of disposal in the following order:
1. Reuse or recycling should first be considered. Reuse is prohibited except by the authorisation holder. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.
  2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
  3. Delivery of the packaging to a licensed service for disposal of hazardous waste.
  4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

#### ♣ SECTION 14: TRANSPORT INFORMATION

##### ADR/RID/IMDG/IATA/ICAO classification

- 14.1. **UN number** ..... 3077

Material group	7745	Page 15 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

- 14.2. **UN proper shipping name** ..... Environmentally hazardous substance, solid, n.o.s. (folpet)
- 14.3. **Transport hazard class(es)** ..... 9
- 14.4. **Packing group** ..... III
- 14.5. **Environmental hazards** ..... Marine pollutant
- 14.6. **Special precautions for user** ..... Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not discharge to the environment.
- 14.7. **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code** ..... The product is not transported in bulk by ship.

#### ♣ SECTION 15: REGULATORY INFORMATION

- 15.1. **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Seveso category (Dir. 2012/18/EU): dangerous for the environment
- Dir. 92/85/EEC: The employer shall assess the degree and duration of exposure at the workplace and any possible effect on pregnant women working with this product, and decide which measures should be taken.
- The Young Worker Directive (94/33/EC) prohibits people under the age of 18 to work with this product.
- All ingredients are covered by EU chemical legislation.
- 15.2. **Chemical safety assessment** ..... A chemical safety assessment is not required to be included for this product.

#### ♣ SECTION 16: OTHER INFORMATION

- Relevant changes in the safety data sheet ..... Minor corrections only
- List of abbreviations .....
- |                  |  |
|------------------|--|
| ACGIH            | American Conference of Governmental Industrial Hygienists  |
| CAS              | Chemical Abstracts Service   |
| Dir.             | Directive  |
| DNEL             | Derived No Effect Level  |
| EC               | European Community   |
| EC <sub>50</sub> | 50% Effect Concentration   |
| EEC              | European Economic Community  |
| EINECS           | European INventory of Existing Commercial Chemical Substances                                    |
| ELINCS           | European LIst of Notified Chemical Substances  |
| GHS              | Globally Harmonized classification and labelling System of chemicals, Fifth revised edition 2013 |

Material group	7745	Page 16 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

HSE	Health & Safety Executive, UK
IBC	International Bulk Chemical code
IC <sub>50</sub>	50% Inhibition Concentration
ISO	International Organisation for Standardisation
IUPAC	International Union of Pure and Applied Chemistry
LC <sub>50</sub>	50% Lethal Concentration
LD <sub>50</sub>	50% Lethal Dose
LOAEL	Lowest Observed Adverse Effect Level
MAK	Maximale Arbeitsplatz-Konzentration
MARPOL	Set of rules from the International Maritime Organisation (IMO) for prevention of sea pollution
mppcf	Million particles per cubic foot
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
n.o.s.	Not otherwise specified
OECD	Organisation for Economic Development and Cooperation
OSHA	Occupational Safety and Health Administration
PBT	Persistent, Bioaccumulative, Toxic
PEL	Personal Exposure Limit
PNEC	Predicted No Effect Concentration
Reg.	Registration, or Regulation
STOT	Specific Target Organ Toxicity
TLV	Threshold Limit Value
TWA	Time Weighted Average
vPvB	very Persistent, very Bioaccumulative
WEL	Workplace Exposure Limit
WG	Water dispersible Granules
WHO	World Health Organisation

References ..... Data measured on the product are unpublished company data. Data on ingredients are available from published literature and can be found several places.

Method for classification ..... Acute inhalation toxicity: calculation method  
 Eye irritation: test data  
 Sensitisation – skin: calculation method  
 Carcinogenicity: calculation method  
 Hazards to the aquatic environment: calculation method

Used hazard statements .....  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H351 Suspected of causing cancer.  
 H400 Very toxic to aquatic life.  
 H411 Toxic to aquatic life with long lasting effects.  
 H412 Harmful to aquatic life with long lasting effects.





**Cheminova A/S**  
Thyborønvej 78  
DK-7673 Harbøre  
Denmark  
+45 9690 9690  
www.fmc.com  
CVR No. DK 12 76 00 43

Material group	7745	Page 17 of 17
Product name	<b>FOLPET 60% w/w + DIMETHOMORPH 11.3% w/w WG</b>	October 2017

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

Advice on training ..... This material should only be used by persons who are made aware of  
its hazardous properties and have been instructed in the required  
safety precautions.

The information provided in this safety data sheet is believed to be accurate and reliable, but uses of the  
product vary and situations unforeseen by FMC Corporation may exist. The user has to check the validity of  
the information under local circumstances.

Prepared by: FMC Corporation / Cheminova A/S / GHB