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REACH

**1,1,1,2,3,3-hexafluoro-3-methoxy-2-(trifluoromethyl)propane**

EC number: 422-270-2 : CAS number: -



Classification & Labelling & PBT assessment

## PBT assessment

### Administrative data

### PBT assessment: overall result

| Reference            |                                           |
|----------------------|-------------------------------------------|
| Name:                | HFE 7100                                  |
| Type of composition: | legal entity composition of the substance |
| State / form:        | liquid                                    |
| Reference substance: | <u>HFE 7100</u>                           |

PBT status: the substance is not PBT / vPvB

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## 1,1,1,2,3,3-hexafluoro-3-methoxy-2-(trifluoromethyl)propane

REACH

EC number: 422-270-2 CAS number: -



Environmental fate &amp; pathways

### Phototransformation in air

001 Key | Experimental result

#### Administrative data

Endpoint: phototransformation in air

Type of information: experimental study

Adequacy of study: key study

#### Data source

##### Reference

Reference Type: study report

Title: Unnamed

Year: 1998

Report date: 1998

#### Materials and methods

##### Test guideline

Qualifier: no guideline followed

Deviations: not applicable

#### Test material

##### Test material information

Constituent 1

#### Study design

Light source: other:

#### Results and discussion

##### Dissipation half-life of parent compound

DT50: 2.6 yr

#### Applicant's summary and conclusion

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Environmental fate & pathways

## Hydrolysis

001 Key | Experimental result

### Administrative data

|                      |                    |
|----------------------|--------------------|
| Endpoint:            | hydrolysis         |
| Type of information: | experimental study |
| Adequacy of study:   | key study          |

### Data source

#### Reference

|                 |              |
|-----------------|--------------|
| Reference Type: | study report |
| Title:          | Unnamed      |
| Year:           | 1999         |
| Report date:    | 1999         |

### Materials and methods

#### Test guideline

|             |                                                                                  |
|-------------|----------------------------------------------------------------------------------|
| Qualifier:  | according to guideline                                                           |
| Guideline:  | EU Method C.7 (Degradation: Abiotic Degradation: Hydrolysis as a Function of pH) |
| Deviations: | no                                                                               |

### Test material

#### Test material information

Constituent 1

Radiolabelling: no

### Results and discussion

#### Total recovery of test substance (in %)

|             |                    |
|-------------|--------------------|
| % Recovery: | >= 86.1 - <= 100.5 |
| Temp.:      | 50 °C              |
| Duration:   | 5 d                |

#### Dissipation DT50 of parent compound

|        |               |
|--------|---------------|
| Temp.: | 25 °C         |
| DT50:  | >= 1 yr       |
| Type:  | not specified |

#### Applicant's summary and conclusion

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Environmental fate & pathways

Biodegradation in water: screening tests

001 Key | Experimental result

Administrative data

|                      |                                                 |
|----------------------|-------------------------------------------------|
| Endpoint:            | biodegradation in water: ready biodegradability |
| Type of information: | experimental study                              |
| Adequacy of study:   | key study                                       |

Data source

| Reference       |              |
|-----------------|--------------|
| Reference Type: | study report |
| Title:          | Unnamed      |
| Year:           | 1996         |
| Report date:    | 1996         |

Materials and methods

| Test guideline |                                                                   |
|----------------|-------------------------------------------------------------------|
| Qualifier:     | according to guideline                                            |
| Guideline:     | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| Deviations:    | no                                                                |

Test material

| Test material information |  |
|---------------------------|--|
| Constituent 1             |  |

Study design

|                                  |         |
|----------------------------------|---------|
| Oxygen conditions:               | aerobic |
| Inoculum or test system:         | other:  |
| Duration of test (contact time): | 28 d    |

Initial test substance concentration

| Initial test substance concentration 1 |           |
|----------------------------------------|-----------|
| Initial conc.:                         | 2.03 mg/L |

Based on: test mat.

### Initial test substance concentration 2

Initial conc.: 5.07 mg/L

Based on: test mat.

## Results and discussion

### % Degradation

#### % Degradation 1

Parameter: % degradation (O2 consumption)

Value: 22

Sampling time: 28 d

Remarks on result: other:

#### % Degradation 2

Parameter: % degradation (test mat. analysis)

Value: -3 - 13

Sampling time: 28 d

Remarks on result: other:

#### % Degradation 3

Parameter: % degradation (O2 consumption)

Value: -7 - 6

Sampling time: 28 d

Remarks on result: other:

#### % Degradation 4

Parameter: % degradation (test mat. analysis)

Value: -6 - 4

Sampling time: 28 d

Remarks on result: other:

## Applicant's summary and conclusion

Validity criteria fulfilled: yes

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Environmental fate & pathways

## Biodegradation in water and sediment: simulation tests

001 No specified study adequacy | No specified result type

### Administrative data

Endpoint: biodegradation in water: simulation testing on ultimate degradation in surface water

#### Cross-reference

##### Cross-reference 1

Reason / purpose for cross-reference: data waiving: supporting information

| Reference                        |                                                                   |
|----------------------------------|-------------------------------------------------------------------|
| Endpoint:                        | biodegradation in water: ready biodegradability                   |
| Type of information:             | experimental study                                                |
| Adequacy of study:               | key study                                                         |
| Qualifier:                       | according to guideline                                            |
| Guideline:                       | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| Deviations:                      | no                                                                |
| Oxygen conditions:               | aerobic                                                           |
| Inoculum or test system:         | other:                                                            |
| Duration of test (contact time): | 28 d                                                              |
| Initial conc.:                   | 2.03 mg/L                                                         |
| Based on:                        | test mat.                                                         |
| Initial conc.:                   | 5.07 mg/L                                                         |
| Based on:                        | test mat.                                                         |
| Parameter:                       | % degradation (O2 consumption)                                    |
| Value:                           | 22                                                                |
| Sampling time:                   | 28 d                                                              |
| Remarks on result:               | other:                                                            |
| Parameter:                       | % degradation (test mat. analysis)                                |
| Value:                           | -3 - 13                                                           |
| Sampling time:                   | 28 d                                                              |
| Remarks on result:               | other:                                                            |
| Parameter:                       | % degradation (O2 consumption)                                    |
| Value:                           | -7 - 6                                                            |
| Sampling time:                   | 28 d                                                              |
| Remarks on result:               | other:                                                            |
| Parameter:                       | % degradation (test mat. analysis)                                |
| Value:                           | -6 - 4                                                            |
| Sampling time:                   | 28 d                                                              |
| Remarks on result:               | other:                                                            |
| Validity criteria fulfilled:     | yes                                                               |

| Cross-reference 2                     |                                      |
|---------------------------------------|--------------------------------------|
| Reason / purpose for cross-reference: | data waiving: supporting information |
| Reference                             |                                      |
| Endpoint:                             | Henry's law constant                 |
| Type of information:                  | calculation (if not (Q)SAR)          |
| Adequacy of study:                    | key study                            |
| Qualifier:                            | according to guideline               |
| Guideline:                            | other:                               |
| Deviations:                           | no                                   |
| H:                                    | 457 600 Pa m <sup>3</sup> /mol       |
| Temp.:                                | 20 °C                                |
| Remarks on result:                    | other:                               |

Data source

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Environmental fate &amp; pathways

### Bioaccumulation: aquatic / sediment

001 Disregarded | Experimental result

## Administrative data

|                      |                                                      |
|----------------------|------------------------------------------------------|
| Endpoint:            | bioaccumulation in aquatic species: fish             |
| Type of information: | experimental study                                   |
| Adequacy of study:   | disregarded due to major methodological deficiencies |

## Data source

| Reference       |              |
|-----------------|--------------|
| Reference Type: | study report |
| Title:          | Unnamed      |
| Year:           | 1996         |
| Report date:    | 1996         |

## Materials and methods

| Test guideline |                                                                                         |
|----------------|-----------------------------------------------------------------------------------------|
| Qualifier:     | according to guideline                                                                  |
| Guideline:     | OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish) |
| Deviations:    | yes                                                                                     |

## Test material

| Test material information |  |
|---------------------------|--|
| Constituent 1             |  |

Radiolabelling: no

## Test organisms

Test organisms (species): Cyprinus carpio

## Study design

|                    |              |
|--------------------|--------------|
| Route of exposure: | aqueous      |
| Test type:         | flow-through |

Water / sediment media type: natural water: freshwater

Total exposure / uptake duration: 56 d

### Test conditions

Reference substance (positive control): no

### Results and discussion

#### Lipid content

Lipid content: 3.3 %  
Time point: other:  
Remarks on result: other:

#### Bioaccumulation factor

##### Bioaccumulation factor 1

Type: BCF  
Value: 45 - 144 dimensionless  
Basis: whole body w.w.  
Time of plateau: 2 wk  
Calculation basis: steady state  
Remarks on result: other:

##### Bioaccumulation factor 2

Type: BCF  
Value: 37 - 105 dimensionless  
Basis: whole body w.w.  
Time of plateau: 2 wk  
Calculation basis: steady state  
Remarks on result: other:

#### Depuration

Elimination: no

### Applicant's summary and conclusion

Validity criteria fulfilled: no

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Environmental fate & pathways

Adsorption / desorption

### Administrative data

|                      |                                    |
|----------------------|------------------------------------|
| Endpoint:            | adsorption / desorption: screening |
| Type of information: | experimental study                 |
| Adequacy of study:   | key study                          |

### Data source

| Reference       |              |
|-----------------|--------------|
| Reference Type: | study report |
| Title:          | Unnamed      |
| Year:           | 1996         |
| Report date:    | 1996         |

### Materials and methods

| Test guideline |                                                                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Qualifier:     | equivalent or similar to guideline                                                                                                                   |
| Guideline:     | OECD Guideline 121 (Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC)) |

|                 |                        |
|-----------------|------------------------|
| Type of method: | HPLC estimation method |
| Media:          | soil                   |

### Test material

| Test material information |  |
|---------------------------|--|
| Constituent 1             |  |

### Results and discussion

#### Adsorption coefficient

| Adsorption coefficient 1 |          |
|--------------------------|----------|
| Type:                    | Koc      |
| Value:                   | 363 L/kg |

### Adsorption coefficient 2

|        |                     |
|--------|---------------------|
| Type:  | log K <sub>oc</sub> |
| Value: | 2.56 dimensionless  |

### Applicant's summary and conclusion

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Ecotoxicological information

### Ecotoxicological Summary

#### Administrative data

#### Hazard for aquatic organisms

##### Freshwater

Hazard assessment conclusion: PNEC aqua (freshwater)

PNEC value: 0.008 mg/L

Assessment factor: 1 000

Extrapolation method: assessment factor

##### Marine water

Hazard assessment conclusion: PNEC aqua (marine water)

PNEC value: 0.001 mg/L

Assessment factor: 10 000

Extrapolation method: assessment factor

##### STP

Hazard assessment conclusion: no emission to STP expected

##### Sediment (freshwater)

Hazard assessment conclusion: PNEC sediment (freshwater)

PNEC value: 0.315 mg/kg sediment dw

Extrapolation method: equilibrium partitioning method

##### Sediment (marine water)

Hazard assessment conclusion: PNEC sediment (marine water)

PNEC value: 0.032 mg/kg sediment dw

Extrapolation method: equilibrium partitioning method

#### Hazard for air

##### Air

no hazard identified

Hazard assessment  
conclusion:

## Hazard for terrestrial organisms

---

### Soil

Hazard assessment  
conclusion:

PNEC soil

PNEC value:

0.035 mg/kg soil dw

Extrapolation method:

equilibrium partitioning method

## Hazard for predators

---

### Secondary poisoning

Hazard assessment  
conclusion:

no potential for bioaccumulation

## Additional information

## Conclusion on classification

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REACH

Toxicological information

Toxicological Summary

Administrative data

Workers - Hazard via inhalation route

Systemic effects

Long term exposure

Hazard assessment conclusion: no hazard identified

Acute/short term exposure

Hazard assessment conclusion: no hazard identified

DNEL related information

Local effects

Long term exposure

Hazard assessment conclusion: no hazard identified

Acute/short term exposure

Hazard assessment conclusion: no hazard identified

DNEL related information

Workers - Hazard via dermal route

Systemic effects

Long term exposure

Hazard assessment conclusion: no hazard identified

Acute/short term exposure

Hazard assessment conclusion: no hazard identified

DNEL related information

Local effects

Long term exposure

Hazard assessment conclusion: no hazard identified

Acute/short term exposure

Hazard assessment conclusion: no hazard identified

## Workers - Hazard for the eyes

---

### Local effects

Hazard assessment conclusion: no hazard identified

### Additional information - workers

---

## General Population - Hazard via inhalation route

---

### Systemic effects

#### Long term exposure

Hazard assessment conclusion: no hazard identified

#### Acute/short term exposure

Hazard assessment conclusion: no hazard identified

#### DNEL related information

### Local effects

#### Long term exposure

Hazard assessment conclusion: no hazard identified

#### Acute/short term exposure

Hazard assessment conclusion: no hazard identified

#### DNEL related information

## General Population - Hazard via dermal route

---

### Systemic effects

#### Long term exposure

Hazard assessment conclusion: no hazard identified

#### Acute/short term exposure

Hazard assessment conclusion: no hazard identified

#### DNEL related information

### Local effects

#### Long term exposure

Hazard assessment conclusion: no hazard identified

#### Acute/short term exposure

Hazard assessment conclusion: no hazard identified

## General Population - Hazard via oral route

---

### Systemic effects

#### Long term exposure

Hazard assessment conclusion: no hazard identified

#### Acute/short term exposure

Hazard assessment conclusion: no hazard identified

## General Population - Hazard for the eyes

---

### Local effects

Hazard assessment conclusion: no hazard identified

### Additional information - General Population

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