SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>System 50</td>
</tr>
<tr>
<td>Product code</td>
<td>MSI 000 C0218</td>
</tr>
<tr>
<td>Type of formulation</td>
<td>Suspension concentrate (SC)</td>
</tr>
<tr>
<td>Active Ingredient</td>
<td>Flufenacet</td>
</tr>
<tr>
<td>MAPP</td>
<td>16612</td>
</tr>
</tbody>
</table>

1.2. Relevant identified uses of the substance or mixture and uses advised against

2.1. Relevant identified uses

Main use category: Plant protection product for professional use. Agriculture.

Use of the substance/mixture: Herbicide.

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

CERTIS UK
Suite 5, 3 Riverside
Granta Park
Great Abington
Cambridgeshire CB21 6AD
United Kingdom
Tel: +44 (0)845 373 0305
Fax: +44 (0)1223 891210
Email: certis@certiseurope.co.uk
Website: www.certiseurope.co.uk

1.4. Emergency telephone number

Emergency number: Certis Carechem24 multilingual 24 hours emergency number: +44 (0) 870 190 6777.

For advice on medical emergencies, fires, spillages or chemical hazards only –phone: 0870 190 6777.

For further advice for medical professionals - The National Poisons Information Service:
Tel: 0870 600 6266 (UK only) or Dublin Tel: 0035 3 137 99 64/379966.
For further advice for veterinary surgeons: 020 7835 9195.

SECTION 2: Hazards identification

2.1. Classification according to Regulation (EC) No. 1272/2008 [CLP]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>H302</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>H317</td>
</tr>
<tr>
<td>STOT RE 2</td>
<td>H373</td>
</tr>
<tr>
<td>Aquatic Acute 1</td>
<td>H400</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>H410</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16.
2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP):

<table>
<thead>
<tr>
<th>GHS07</th>
<th>GHS08</th>
<th>GHS09</th>
</tr>
</thead>
</table>

Signal word (CLP): Warning.

Contains: Flufenacet (142459-58-3); 1,2-benzisothiazolin-3-one (002634-33-5).

Hazard statements (CLP):

H302 - Harmful if swallowed.
H317 - May cause an allergic skin reaction.
H373 - May cause damage to organs through prolonged or repeated exposure.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP):

P260 - Do not breathe mist/spray.
P280 - Wear protective gloves.
P333+ P314 - If skin irritation or rash occurs or if you feel unwell: Get medical advice/attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
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.

EUH phrases:

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

Supplemental information:

SP1 - Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable.

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flufenacet</td>
<td>(CAS No) 142459-58-3</td>
<td>40 - 60</td>
<td>Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: In the event of any complaints or symptoms, avoid further exposure.
4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries: No information available.

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

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray

Dry chemical powder

Alcohol resistant foam

Carbon dioxide (CO₂).

Unsuitable extinguishing media: Water spray jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Combustion or thermal decomposition may generate toxic vapours: chlorine compounds, nitrogen oxides, carbon monoxide, hydrocarbons.

5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire.

Fight fire from safe distance and protected location.

Do not breathe fumes

Cool closed containers exposed to fire with water spray

If possible, take the containers out of dangerous zone.

Contain fire-fighting water with dikes or absorbents to prevent migration and entry into sewers, streams or groundwater.

Protection during firefighting: Wear suitable protective clothing, gloves, eye/face protection and respiratory protection

Wear a self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Protective equipment: Wear suitable protective clothing, gloves and eye/face protection.
Emergency procedures: Evacuate area.

Ensure adequate ventilation.

Avoid direct contact with the substance.

Contain any spills with dikes or absorbents to prevent migration and entry into sewers, streams or groundwater.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify the authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Clean up any spills as soon as possible, using an absorbent material to collect it.

Once absorbed collect spilled material with shovels, buckets and place in closed containers and label properly.

Remove as chemical waste, according to national or local legislation.

In the event of major spillage: contact an expert.

6.4. Reference to other sections

See sections 7-8-13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Read label before use.

Avoid contact with eyes, skin, nose and mouth.

Wear suitable protective clothing, gloves and eye/face protection.

Opened containers must be carefully closed and kept upright to avoid leakage.

Hygiene measures: Always wash your hands immediately after handling this product, and once again before leaving the workplace.

Contaminated work clothing should not be allowed out of the workplace.

Do not eat, drink or smoke when using this product.

Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Provide adequate ventilation.

Storage conditions: Prevent unauthorised access.

Keep locked up and out of the reach of children.

Keep in original containers, tightly closed.

Keep away from food, drink and animal feedingstuffs.

Protect against frost.

Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Herbicide for agricultural use. Refer to the label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available.
8.2. Exposure controls

Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection: Wear impervious gloves resistant to chemical. Nitrile rubber.

Eye protection: Safety goggles or a face shield.

Skin and body protection: Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots.

Respiratory protection: Wear appropriate respirator for organic vapors.

Hygiene measures: Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke while handling the product.

Hand protection: Wear impervious gloves resistant to chemical. Nitrile rubber.

Eye protection: Safety goggles or a face shield.

Skin and body protection: Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots.

Respiratory protection: Wear appropriate respirator for organic vapors.

Hygiene measures: Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke while handling the product.

Clean gloves with soap and water before removing.

Wash hands and face with soap and water before eating, drinking smoking and immediately after handling product.

Clean equipment, premises and work clothes regularly.

Work clothing should remain on the work area and stored separately from street clothes.

Environmental exposure controls: Discharge into the environment must be avoided. Do not contaminate surface and groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Colour: No data available

Odour: No data available

Odour threshold: No data available

pH: No data available

Relative evaporation rate (butylacetate=1): No data available

Melting point: No data available

Freezing point: No data available

Boiling point: No data available

Flash point: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Flammability (solid, gas): No data available

Vapour pressure: No data available

Relative vapour density at 20 °C: No data available

Relative density: No data available

Solubility: No data available

Log Pow: No data available
9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is stable at normal handling and storage conditions.

10.2. Chemical stability
The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions
Hazardous polymerization does not occur.
Is not explosive and does not exhibit oxidant properties.

10.4. Conditions to avoid
No additional information available

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Combustion or thermal decomposition may generate toxic vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Harmful if swallowed.
Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity
No additional information available
### 12.2. Persistence and degradability
No additional information available.

### 12.3. Bioaccumulative potential
No additional information available.

### 12.4. Mobility in soil
No additional information available.

### 12.5. Results of PBT and vPvB assessment
No additional information available.

### 12.6. Other adverse effects
No additional information available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods
Dispose in a safe manner in accordance with local/national regulations.

### SECTION 14: Transport information

#### 14.1. UN number
- UN-No. : 3082
- UN-No.(IATA) : 3082

#### 14.2. UN proper shipping name
- Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Flufenacet)
- Transport document description : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Flufenacet), 9, III, (E)

#### 14.3. Transport hazard class(es)
- Class (UN) : 9
- Class (IATA) : 9 - Miscellaneous dangerous goods.
- Hazard labels (UN) : 9

#### 14.4. Packing group
- Packing group (UN) : III

#### 14.5. Environmental hazards
- Dangerous for the environment :
- Marine pollutant :

Other information : No supplementary information available.

#### 14.6. Special precautions for user

##### 14.6.1. Overland transport
- Hazard identification number (Kemler No.) : 90
- Classification code (UN) : M6
Orange plates : 90 3082

14.6.2. Transport by sea
EmS-No. (1) : F-A
EmS-No. (2) : S-F

14.6.3. Air transport
No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations
No REACH Annex XVII restrictions
Contains no REACH candidate substance

15.1.2. National regulations
No additional information available

15.2. Chemical safety assessment
No additional information available

SECTION 16: Other information

Indication of changes:

<table>
<thead>
<tr>
<th>Change date</th>
<th>Previous Version</th>
<th>Section</th>
<th>Changed Item</th>
<th>Change</th>
<th>Comments</th>
</tr>
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<tr>
<td>19/05/2015</td>
<td>1.0</td>
<td>14</td>
<td>ADR: 3077</td>
<td>Modified</td>
<td>Rob Schoonbeek proposal.</td>
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<tr>
<td>22/05/2015</td>
<td>2.0</td>
<td>2.2</td>
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<td>08/06/2015</td>
<td>2.1</td>
<td>2.2</td>
<td>1,2-benzisothiazolin-3-one (002634-33-5)</td>
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<td>Biocide co-formulate.</td>
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<td>2.2</td>
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<td>P314</td>
<td>Added</td>
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<td>29/06/2015</td>
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Full text of H phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Oral)</th>
<th>Acute toxicity (oral), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment — Acute Hazard, Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>Hazardous to the aquatic environment — Chronic Hazard, Category 1</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>Sensitisation — Skin, category 1</td>
</tr>
<tr>
<td>STOT RE 2</td>
<td>Specific target organ toxicity — Repeated exposure, Category 2</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>