



## SAFETY DATA SHEET ENSTAR

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

#### 1.1. Product identifier

Product name ENSTAR  
Product number PST034/2

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

Identified uses Herbicide.

#### 1.3. Details of the supplier of the safety data sheet

Supplier Headland Amenity Ltd  
1 Burr Elm Court  
Main Street  
Caldecote  
Cambridge  
Cambridgeshire  
CB23 7NU  
Tel. +44 (0)1223 491090  
sds.enquiries@headlandamenity.com

Contact person Wendy Johnson

Manufacturer Barclay Chemicals Manufacturing Ltd  
Damastown Industrial Park  
Damastown Way  
Mulhuddart  
Dublin 15  
+353 1 811 29 00  
info@barclay.ie

#### 1.4. Emergency telephone number

Emergency telephone +353 86 385 77 69

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H336 Asp. Tox. 1 - H304

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

#### 2.2. Label elements

##### Pictogram



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|                                 |  |
|---------------------------------|--|
| <b>Signal word</b>              | Danger   |
| <b>Hazard statements</b>        | H302 Harmful if swallowed.<br>H315 Causes skin irritation.<br>H319 Causes serious eye irritation.<br>H336 May cause drowsiness or dizziness.<br>H410 Very toxic to aquatic life with long lasting effects.<br>H304 May be fatal if swallowed and enters airways.   |
| <b>Precautionary statements</b> | P270 Do not eat, drink or smoke when using this product.<br>P273 Avoid release to the environment.<br>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.<br>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.<br>P302+P352 IF ON SKIN: Wash with plenty of water.<br>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P312 Call a POISON CENTRE/doctor if you feel unwell.<br>P337+P313 If eye irritation persists: Get medical advice/ attention.<br>P362 Take off contaminated clothing.<br>P391 Collect spillage.<br>P403+P233 Store in a well-ventilated place. Keep container tightly closed.<br>P501 Dispose of contents/ container in accordance with national regulations. |
| <b>Contains</b>                 | 2-ETHYLHEXYL 2, 4-DICHLOROPHENOXYACETATE, HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE, DICAMBA (ISO), TALLOW ALKYLAMINE ETHOXYLATE, 2-METHYLPROPAN-1-OL  |

## 2.3. Other hazards

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

|   |                        |  |
|---|------------------------|--|
| <b>2-ETHYLHEXYL 2, 4-DICHLOROPHENOXYACETATE</b> |                        | <b>30-60%</b>                                    |
| CAS number: 1928-43-4                           | EC number: 217-673-3   |  |
| M factor (Acute) = 1                            | M factor (Chronic) = 1 |  |
| <b>Classification</b>                           |                        |  |
| Acute Tox. 4 - H302                             |                        |  |
| Skin Sens. 1 - H317                             |                        |  |
| Aquatic Acute 1 - H400                          |                        |  |
| Aquatic Chronic 1 - H410                        |                        |  |
| <b>FLUOROXYPYR-MEPTYL (ISO)</b>                 |                        | <b>10-30%</b>                                    |
| CAS number: 81406-37-3                          | EC number: 279-752-9   |  |
| M factor (Acute) = 1                            | M factor (Chronic) = 1 |  |
| <b>Classification</b>                           |                        | <b>Classification (67/548/EEC or 1999/45/EC)</b> |
| Aquatic Acute 1 - H400                          |                        | N; R50/53  |
| Aquatic Chronic 1 - H410                        |                        |  |

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|   |  |
|---|--|
| <b>HYDROCARBONS, C10, AROMATICS, &lt;1% NAPHTHALENE</b> | <b>10-30%</b>                                    |
| CAS number: —   | EC number: 918-811-1                             |
| <b>Classification</b>                                   |  |
| STOT SE 3 - H336  |  |
| Asp. Tox. 1 - H304                                      |  |
| Aquatic Chronic 2 - H411                                |  |
| <b>CALCIUM DODECYLBENZE SULPHONATE</b>                  | <b>1-5%</b>                                      |
| CAS number: 26264-06-2                                  | EC number: 247-557-8                             |
| <b>Classification</b>                                   |  |
| Skin Irrit. 2 - H315                                    |  |
| Eye Dam. 1 - H318                                       |  |
| Aquatic Chronic 3 - H412                                |  |
| <b>TALLOW ALKYLAMINE ETHOXYLATE</b>                     | <b>1-5%</b>                                      |
| CAS number: 61791-26-2                                  | EC number: 500-153-8                             |
| <b>Classification</b>                                   |  |
| Acute Tox. 4 - H302                                     |  |
| Acute Tox. 2 - H330                                     |  |
| Eye Dam. 1 - H318                                       |  |
| Aquatic Chronic 2 - H411                                |  |
| <b>DICAMBA (ISO)</b>                                    | <b>1-5%</b>                                      |
| CAS number: 1918-00-9                                   | EC number: 217-635-6                             |
| <b>Classification</b>                                   |  |
| Acute Tox. 4 - H302                                     | <b>Classification (67/548/EEC or 1999/45/EC)</b> |
| Eye Dam. 1 - H318                                       | Xn; R22. Xi; R41. R52/53                         |
| Aquatic Chronic 3 - H412                                |  |
| <b>2-METHYLPROPAN-1-OL</b>                              | <b>1-5%</b>                                      |
| CAS number: 78-83-1                                     | EC number: 201-148-0                             |
| <b>Classification</b>                                   |  |
| Flam. Liq. 3 - H226                                     |  |
| Skin Irrit. 2 - H315                                    |  |
| Eye Dam. 1 - H318                                       |  |
| STOT SE 3 - H335, H336                                  |  |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Show this Safety Data Sheet to the medical personnel. Treat symptomatically.

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|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Remove affected person from source of contamination. Remove person to fresh air and keep comfortable for breathing. Loosen tight clothing such as collar, tie or belt. No special treatment required. Get medical attention if any discomfort continues.   |
| <b>Ingestion</b>    | Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Keep affected person under observation. Do not induce vomiting unless under the direction of medical personnel. Show this Safety Data Sheet to the medical personnel. |
| <b>Skin contact</b> | Remove contaminated clothing immediately and wash skin with soap and water. Keep affected person under observation. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.  |
| <b>Eye contact</b>  | Remove affected person from source of contamination. Get medical attention immediately. Remove any contact lenses and open eyelids wide apart. Rinse cautiously with water for several minutes. Keep affected person under observation. Show this Safety Data Sheet to the medical personnel.  |

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

|                            |   |
|----------------------------|---|
| <b>General information</b> | See Section 11 for additional information on health hazards.          |
| <b>Inhalation</b>          | Coughing. Sore throat.  |
| <b>Ingestion</b>           | May cause stomach pain or vomiting.                                   |
| <b>Skin contact</b>        | May cause skin irritation.  |
| <b>Eye contact</b>         | Causes serious eye irritation. Profuse watering of the eyes. Redness. |

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

|                             |                        |
|-----------------------------|------------------------|
| <b>Notes for the doctor</b> | Treat symptomatically. |
|-----------------------------|------------------------|

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

|                                       |  |
|---------------------------------------|--|
| <b>Suitable extinguishing media</b>   | Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. |
| <b>Unsuitable extinguishing media</b> | Do not use water jet as an extinguisher, as this will spread the fire.           |

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

|                                      |             |
|--------------------------------------|-------------|
| <b>Specific hazards</b>              | None known. |
| <b>Hazardous combustion products</b> | None known. |

#### 5.3. Advice for firefighters

|   |   |
|---|---|
| <b>Protective actions during firefighting</b> | Do not use water jet as an extinguisher, as this will spread the fire. Avoid breathing fire gases or vapours. Contain and collect extinguishing water. Fight fire from safe distance or protected location. If risk of water pollution occurs, notify appropriate authorities. Move containers from fire area if it can be done without risk. |
|---|---|

|  |   |
|--|---|
| <b>Special protective equipment for firefighters</b> | Use air-supplied respirator, gloves and protective goggles. |
|--|---|

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

|                             |  |
|-----------------------------|--|
| <b>Personal precautions</b> | For personal protection, see Section 8. Keep unnecessary and unprotected personnel away from the spillage. |
|-----------------------------|--|

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### 6.2. Environmental precautions

**Environmental precautions** Very toxic to aquatic life with long lasting effects. Do not discharge into drains or watercourses or onto the ground. Contain spillage with sand, earth or other suitable non-combustible material. Environmental Manager must be informed of all major spillages.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Contain spillage with sand, earth or other suitable non-combustible material. Collect spillage. Place waste in labelled, sealed containers. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Avoid contact with eyes. Do not empty into drains. Do not eat, drink or smoke when using this product. Protect from freezing and direct sunlight.

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

**Storage precautions** Keep away from food, drink and animal feeding stuffs. Keep only in the original container. Protect from freezing and direct sunlight.

**Storage class** Miscellaneous hazardous material storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### DICAMBA (ISO)

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup>

##### 2-METHYLPROPAN-1-OL

Long-term exposure limit (8-hour TWA): WEL 50 ppm 154 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 75 ppm 231 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

### 8.2. Exposure controls

#### Protective equipment



**Eye/face protection** Tight-fitting safety glasses.

**Hand protection** Wear protective gloves made of the following material: Nitrile rubber.

**Hygiene measures** Do not eat, drink or smoke when using this product. Promptly remove any clothing that becomes wet or contaminated. Provide eyewash station. Wash hands thoroughly after handling.

## SECTION 9: Physical and chemical properties

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

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|  |   |
|--|---|
| <b>Appearance</b>                      | Clear liquid.   |
| <b>Colour</b>                          | Brown.  |
| <b>Odour</b>                           | Characteristic.   |
| <b>pH</b>                              | pH (concentrated solution): 4.0                             |
| <b>Melting point</b>                   | Not applicable.   |
| <b>Initial boiling point and range</b> | Not known.  |
| <b>Flash point</b>                     | Not known.  |
| <b>Evaporation rate</b>                | Not known.  |
| <b>Vapour pressure</b>                 | Not known.  |
| <b>Vapour density</b>                  | Not known.  |
| <b>Relative density</b>                | 1.050 - 1.090 @ 20°C  |
| <b>Bulk density</b>                    | Not known.  |
| <b>Solubility(ies)</b>                 | Miscible with water.  |
| <b>Viscosity</b>                       | Not known.  |
| <b>Comments</b>                        | Information given is applicable to the product as supplied. |

### 9.2. Other information

**Other information** None.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** No potentially hazardous reactions known.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid freezing. There are no known conditions that are likely to result in a hazardous situation.

### 10.5. Incompatible materials

**Materials to avoid** None known.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

**ATE oral (mg/kg)** 1,428.57

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### Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 8.84

### Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

Ingestion Harmful if swallowed.

Skin contact May cause skin irritation.

Eye contact Causes serious eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Acute aquatic toxicity

Acute toxicity - fish LC<sub>50</sub>, 96 hours: 4.8 mg/l, Fish

Acute toxicity - aquatic invertebrates LC<sub>50</sub>, 48 hours: 33.6 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC<sub>50</sub>, 72 hours: 2.1 mg/l, Algae

### 12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Biodegradation Not available.

### 12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

### 12.4. Mobility in soil

Mobility The product is miscible with water and may spread in water systems.

### 12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

Other adverse effects None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

General information This material and its container must be disposed of as hazardous waste. Dispose of waste product or used containers in accordance with local regulations

## SECTION 14: Transport information

### 14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN No. (ADN) 3082

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### 14.2. UN proper shipping name

|                                       |  |
|---------------------------------------|--|
| <b>Proper shipping name (ADR/RID)</b> | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Hydrocarbons, C10, aromatics, >1% naphthalene, Tallow alkylamine ethoxylate) |
| <b>Proper shipping name (IMDG)</b>    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Hydrocarbons, C10, aromatics, >1% naphthalene, Tallow alkylamine ethoxylate) |
| <b>Proper shipping name (ICAO)</b>    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Hydrocarbons, C10, aromatics, >1% naphthalene, Tallow alkylamine ethoxylate) |
| <b>Proper shipping name (ADN)</b>     | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Hydrocarbons, C10, aromatics, >1% naphthalene, Tallow alkylamine ethoxylate) |

### 14.3. Transport hazard class(es)

|                                    |    |
|------------------------------------|----|
| <b>ADR/RID class</b>               | 9  |
| <b>ADR/RID classification code</b> | M6 |
| <b>ADR/RID label</b>               | 9  |
| <b>IMDG class</b>                  | 9  |
| <b>ICAO class/division</b>         | 9  |
| <b>ADN class</b>                   | 9  |

#### Transport labels



### 14.4. Packing group

|                              |     |
|------------------------------|-----|
| <b>ADR/RID packing group</b> | III |
| <b>IMDG packing group</b>    | III |
| <b>ICAO packing group</b>    | III |
| <b>ADN packing group</b>     | III |

### 14.5. Environmental hazards

#### Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

|   |          |
|---|----------|
| <b>EmS</b>                                    | F-A, S-F |
| <b>ADR transport category</b>                 | 3        |
| <b>Emergency Action Code</b>                  | •3Z      |
| <b>Hazard Identification Number (ADR/RID)</b> | 90       |
| <b>Tunnel restriction code</b>                | (E)      |

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code



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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

**EU legislation**

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

### 15.2. Chemical safety assessment

An Exposure Scenario has not been prepared as a CSR was not required for registration.

## SECTION 16: Other information

|                                  |   |
|----------------------------------|---|
| <b>Revision comments</b>         | This is the first issue.  |
| <b>Revision date</b>             | 02/05/2019  |
| <b>Revision</b>                  | 1   |
| <b>SDS number</b>                | 20551   |
| <b>Hazard statements in full</b> | H226 Flammable liquid and vapour.<br>H302 Harmful if swallowed.<br>H304 May be fatal if swallowed and enters airways.<br>H315 Causes skin irritation.<br>H317 May cause an allergic skin reaction.<br>H318 Causes serious eye damage.<br>H319 Causes serious eye irritation.<br>H330 Fatal if inhaled.<br>H335 May cause respiratory irritation.<br>H336 May cause drowsiness or dizziness.<br>H400 Very toxic to aquatic life.<br>H410 Very toxic to aquatic life with long lasting effects.<br>H411 Toxic to aquatic life with long lasting effects.<br>H412 Harmful to aquatic life with long lasting effects. |