



## 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  
 Product Registration No. MAPP 18911

#### 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.  
 1-3 Freeman Court  
 Jarman Way  
 Royston  
 Hertfordshire  
 SG8 5HW  
 +44 (0)1763 255550  
 sds@headlandamenity.com

**Contact person** Wendy Johnson

**Manufacturer** Barclay Chemicals Manufacturing Ltd  
 Damastown Industrial Park  
 Damastown Way  
 Mulhuddart  
 Dublin 15  
 +353 18112900  
 info@barclay.ie

#### 1.4. Emergency telephone number

**Emergency telephone** +353 18112900 (9am-5pm, Monday-Friday)

**National emergency telephone number** 111

### 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

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## Hazard pictograms



## Signal word

Danger

## Hazard statements

H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.  
 H304 May be fatal if swallowed and enters airways.  
 H410 Very toxic to aquatic life with long lasting effects.

## Precautionary statements

P270 Do not eat, drink or smoke when using this product.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 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 CENTRE/doctor if you feel unwell.  
 P337+P313 If eye irritation persists: Get medical advice/ attention.  
 P362 Take off contaminated clothing.  
 P391 Collect spillage.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P501 Dispose of contents/ container in accordance with national regulations.

## Contains

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> CAS number: 1928-43-4                      EC number: 217-673-3 M factor (Acute) = 1                              M factor (Chronic) = 1	<b>30-60%</b>
<b>Classification</b> Acute Tox. 4 - H302 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	
<b>HYDROCARBONS, C10, AROMATICS, &lt;1% NAPHTHALENE</b> CAS number: —                                      EC number: 918-811-1	<b>10-30%</b>
<b>Classification</b> STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	

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<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> Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	<b>Classification (67/548/EEC or 1999/45/EC)</b> N; R50/53
<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 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>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>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. Move affected person to fresh air and keep warm and at rest in a position 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.
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### 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.
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<b>Special protective equipment for firefighters</b>	Use air-supplied respirator, gloves and protective goggles.
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### SECTION 6: Accidental release measures

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

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**Personal precautions** For personal protection, see Section 8. Keep unnecessary and unprotected personnel away from the spillage.

### 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.

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### SECTION 9: Physical and chemical properties

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

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

#### 9.2. Other information

Other information	None.
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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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#### 10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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#### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No potentially hazardous reactions known.
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#### 10.4. Conditions to avoid

Conditions to avoid	Avoid freezing. There are no known conditions that are likely to result in a hazardous situation.
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#### 10.5. Incompatible materials

Materials to avoid	None known.
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#### 10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended.
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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

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### Acute toxicity - oral

ATE oral (mg/kg) 1,427.34

### 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

Ecotoxicity Very toxic to aquatic life with long lasting effects.

### 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

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UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

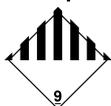
### 14.2. UN proper shipping name

<b>Proper shipping name (ADR/RID)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS 2-ETHYLHEXYL 2, 4-DICHLOROPHENOXYACETATE, HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE)
<b>Proper shipping name (IMDG)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS 2-ETHYLHEXYL 2, 4-DICHLOROPHENOXYACETATE, HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE)
<b>Proper shipping name (ICAO)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS 2-ETHYLHEXYL 2, 4-DICHLOROPHENOXYACETATE, HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE)
<b>Proper shipping name (ADN)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS 2-ETHYLHEXYL 2, 4-DICHLOROPHENOXYACETATE, HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE)

### 14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

#### Transport labels



### 14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3

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**Emergency Action Code**      •3Z

**Hazard Identification Number**    90  
(ADR/RID)

**Tunnel restriction code**          (-)

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

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

## **SECTION 15: Regulatory information**

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

### 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>	Supplier company address updated. Emergency contact details updated. NOTE: Lines within the margin indicate significant changes from the previous revision.
<b>Revision date</b>	26/05/2021
<b>Revision</b>	2
<b>Supersedes date</b>	02/05/2019
<b>SDS number</b>	20551
<b>Hazard statements in full</b>	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H330 Fatal if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.