

**Section 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier****Product name:** DULASE P**Product code:** DULASEP**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of substance / mixture:** Beverage Processing Aids and Other Usages**1.3. Details of the supplier of the safety data sheet****Company name:** Murphy and Son Ltd

Murphy &amp; Son Ltd

Alpine St, Old Basford

Nottingham

NG6 0HQ

United Kingdom

**Tel:** (+44) 115 978 5494**Email:** technical@murphyandson.co.uk**1.4. Emergency telephone number****Emergency tel:** (+44) 115 978 5494

(office hours only)

**Section 2: Hazards identification****2.1. Classification of the substance or mixture****Classification under CLP:** Resp. Sens. 1: H334**Most important adverse effects:** May cause allergy or asthma symptoms or breathing difficulties if inhaled.**2.2. Label elements****Label elements:****Hazard statements:** H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.**Hazard pictograms:** GHS08: Health hazard**Signal words:** Danger**Precautionary statements:** P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.

P285: In case of inadequate ventilation wear respiratory protection.

P304+P341: IF INHALED: if breathing is difficult, remove victim to fresh air and keep at

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rest in a position comfortable for breathing.

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

P501: Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

CELLULASE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
232-734-4	9012-54-8	-	Resp. Sens. 1: H334	10-30%

AMYLASE, ALPHA-

232-565-6	9000-90-2	-	Resp. Sens. 1: H334	10-30%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Wash immediately with plenty of soap and water. Remove all contaminated clothes and footwear immediately unless stuck to skin. Obtain medical attention if ill effect or irritation develops

**Eye contact:** Bathe the eye with running water for 15 minutes. Obtain medical attention if pain, blinking, tears or redness persist.

**Ingestion:** Wash out mouth with water. Seek medical attention if ill effect develops

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down. If unconscious and breathing is OK, place in the recovery position. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Obtain medical attention if breathing difficulty and / or other complaints appear

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

**Skin contact:** There may be redness or whiteness of the skin in the area of exposure.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be irritation of the throat. There may be shortness of breath due to congestion of the lungs.

**Inhalation:** Exposure may cause coughing or wheezing. There may be congestion of the lungs causing severe shortness of breath. The effect of inhalation may be delayed.

**Delayed / immediate effects:** Delayed effects can be expected after long-term exposure.

[cont...]

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

**Immediate / special treatment:** Not applicable.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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

**Exposure hazards:** In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

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

**Personal precautions:** If outside do not approach from downwind. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Alert the neighbourhood to the presence of fumes or gas.

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

**Clean-up procedures:** Use mechanical handling equipment. Avoid generation and spreading of dust. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Wash the spillage site with large amounts of water.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Ensure there is exhaust ventilation of the area. Avoid the formation or spread of dust in the air.

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

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Must only be kept in original packaging.

### 7.3. Specific end use(s)

**Specific end use(s):** Beverage Processing Aids and Other Usages

[cont...]

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## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Workplace exposure limits:** No data available.

### DNEL/PNEC Values

**DNEL / PNEC** No data available.

### 8.2. Exposure controls

**Engineering measures:** Ensure there is exhaust ventilation of the area.

**Respiratory protection:** Self-contained breathing apparatus must be used in handling. Respiratory protective device with particle filter. Particle filter class P3S (EN143).

**Hand protection:** Protective gloves.

**Eye protection:** Tightly fitting safety goggles. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

## Section 9: Physical and chemical properties

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

**State:** Powder

**Colour:** Off-white

**Odour:** Characteristic odour

**Evaporation rate:** Not applicable.

**Oxidising:** Not applicable.

**Solubility in water:** Soluble

**Viscosity:** Not applicable.

**Boiling point/range°C:** Not applicable.

**Flammability limits %: lower:** Not applicable.

**Flash point°C:** Not applicable.

**Autoflammability°C:** Not applicable.

**Relative density:** No data available.

**VOC g/l:** Not applicable.

**Melting point/range°C:** Not applicable.

**upper:** Not applicable.

**Part.coeff. n-octanol/water:** Not applicable.

**Vapour pressure:** Not applicable.

**pH:** Not applicable.

### 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

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## 10.3. Possibility of hazardous reactions

**Hazardous reactions:** No data available.

## 10.4. Conditions to avoid

**Conditions to avoid:** None known

## 10.5. Incompatible materials

**Materials to avoid:** None Known

## 10.6. Hazardous decomposition products

**Haz. decomp. products:** None Known

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

**Hazardous ingredients:**

**AMYLASE, ALPHA-**

ORAL	MUS	LD50	>15	g/kg
ORAL	RAT	LD50	>17500	mg/kg

**Relevant hazards for product:**

Hazard	Route	Basis
Respiratory/skin sensitisation	INH	Hazardous: calculated

### Symptoms / routes of exposure

**Skin contact:** There may be redness or whiteness of the skin in the area of exposure.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be irritation of the throat. There may be shortness of breath due to congestion of the lungs.

**Inhalation:** Exposure may cause coughing or wheezing. There may be congestion of the lungs causing severe shortness of breath. The effect of inhalation may be delayed.

**Delayed / immediate effects:** Delayed effects can be expected after long-term exposure.

**Other information:** May cause allergic respiratory reaction.

## Section 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity values:** No data available.

### 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

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## 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

## 12.4. Mobility in soil

**Mobility:** No data available.

## 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

## 12.6. Other adverse effects

**Other adverse effects:** Negligible ecotoxicity.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Dispose in a safe manner in accordance with local/national regulations.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

**Transport class:** This product does not require a classification for transport.

## Section 15: Regulatory information

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

**Specific regulations:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Legend to abbreviations:** PNEC = predicted no effect concentration

DNEL = derived no effect level

LD50 = median lethal dose

LC50 = median lethal concentration

LDLO = lethal dose low

EC50 = median effective concentration

[cont...]

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IC50 = median inhibitory concentration

dw = dry weight

bw = body weight

cc = closed cup

oc = open cup

MUS = mouse

GPG = guinea pig

RBT = rabbit

HAM = hamster

HMN = human

MAM = mammal

PGN = pigeon

IVN = intravenous

IPR = intraperitoneal

SCU = subcutaneous

ORL = oral

SKN = skin

DRM = dermal

OCC = ocular/corneal

OPT = optical

ING = ingestion

INH = inhalation

PCP = physico-chemical properties

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.