



## SAFETY DATA SHEET E2 MUSTARD

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

#### 1.1. Product identifier

Product name E2 MUSTARD

Product number 65501

REACH registration notes Exempt -Food / Pharma. application exempt by Article 2(5)

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

Identified uses Food industry

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

Supplier Univar Solutions UK Ltd  
Aquarius House  
6 Mid Point Business Park  
Bradford  
BD3 7AY  
+44 1274 267300  
+44 1274 267306  
SDS.EMEA@univarsolutions.com

#### 1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 65501

### SECTION 2: Hazards identification

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

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

Physical hazards Not Classified

Health hazards Acute Tox. 3 - H331 Skin Corr. 1C - H314 Eye Dam. 1 - H318 Resp. Sens. 1 - H334 Skin Sens. 1 - H317

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

#### 2.2. Label elements

##### Hazard pictograms



Signal word

Danger

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|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazard statements</b>        | <p>H331 Toxic if inhaled.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H400 Very toxic to aquatic life.</p> <p>H411 Toxic to aquatic life with long lasting effects.</p>                                                                                                                                                |
| <b>Precautionary statements</b> | <p>P261 Avoid breathing dust.</p> <p>P273 Avoid release to the environment.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p> |
| <b>Contains</b>                 | ALLYL ISOTHIOCYANATE                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

|                                                                                                                                                                                                                                                                     |                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>ALLYL ISOTHIOCYANATE</b>                                                                                                                                                                                                                                         | <b>10-30%</b>          |
| CAS number: 57-06-7                                                                                                                                                                                                                                                 | EC number: 200-309-2   |
| M factor (Acute) = 10                                                                                                                                                                                                                                               | M factor (Chronic) = 1 |
| <b>Classification</b><br>Flam. Liq. 3 - H226<br>Acute Tox. 4 - H302<br>Acute Tox. 3 - H311<br>Acute Tox. 2 - H330<br>Skin Corr. 1C - H314<br>Eye Dam. 1 - H318<br>Resp. Sens. 1 - H334<br>Skin Sens. 1 - H317<br>Aquatic Acute 1 - H400<br>Aquatic Chronic 1 - H410 |                        |

The full text for all hazard statements is displayed in Section 16.

**Composition comments** The data shown are in accordance with the latest EC Directives.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                     |                                                                                                                                                                                                                                               |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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. Rinse nose and mouth with water. Get medical attention if any discomfort continues. |
| <b>Ingestion</b>    | Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Give plenty of water to drink. Get medical attention if any discomfort continues.                                                        |
| <b>Skin contact</b> | Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.                                                  |

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**Eye contact** Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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

**Inhalation** Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin contact** Causes severe burns. May cause an allergic skin reaction.

**Eye contact** Causes severe burns.

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

**Notes for the doctor** Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Use fire-extinguishing media suitable for the surrounding fire.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

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

**Specific hazards** Dust may form explosive mixture with air.

**Hazardous combustion products** Oxides of carbon. Hydrogen cyanide (HCN).

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

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

**Personal precautions** Follow precautions for safe handling described in this safety data sheet Provide adequate ventilation. Avoid inhalation of dust. Avoid contact with skin and eyes. Take precautionary measures against static discharges.

### 6.2. Environmental precautions

**Environmental precautions** Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

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

**Methods for cleaning up** Avoid generation and spreading of dust. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Flush contaminated area with plenty of water.

### 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 spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid handling which leads to dust formation. Take precautionary measures against static discharges.

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

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Earth container and transfer equipment to eliminate sparks from static electricity. Keep away from heat, sparks and open flame.

**Storage class** Corrosive 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

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation.

#### Eye/face protection

Dust-resistant, chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

#### Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374.

#### Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

#### Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

#### Respiratory protection

Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m<sup>3</sup>. Wear a respirator fitted with the following cartridge: Particulate filter, type P2. EN 136/140/141/145/143/149

## SECTION 9: Physical and chemical properties

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

|                                        |                           |
|----------------------------------------|---------------------------|
| <b>Appearance</b>                      | Dusty powder.             |
| <b>Colour</b>                          | Cream. White.             |
| <b>Odour</b>                           | Characteristic.           |
| <b>Odour threshold</b>                 | No information available. |
| <b>pH</b>                              | No information available. |
| <b>Melting point</b>                   | No information available. |
| <b>Pour Point</b>                      | No information available. |
| <b>Freezing Point</b>                  | No information available. |
| <b>Initial boiling point and range</b> | No information available. |

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|                                              |                           |
|----------------------------------------------|---------------------------|
| Flash point                                  | 94°C                      |
| Evaporation rate                             | No information available. |
| Evaporation factor                           | No information available. |
| Flammability (solid, gas)                    | No information available. |
| Upper/lower flammability or explosive limits | No information available. |
| Other flammability                           | No information available. |
| Vapour pressure                              | No information available. |
| Vapour density                               | No information available. |
| Relative density                             | No information available. |
| Bulk density                                 | No information available. |
| Solubility(ies)                              | No information available. |
| Partition coefficient                        | No information available. |
| Auto-ignition temperature                    | No information available. |
| Decomposition Temperature                    | No information available. |
| Viscosity                                    | No information available. |
| Explosive properties                         | No information available. |
| Explosive under the influence of a flame     | No information available. |
| Oxidising properties                         | No information available. |

### 9.2. Other information

|                           |                           |
|---------------------------|---------------------------|
| Other information         | Not available.            |
| Refractive index          | No information available. |
| Particle size             | No information available. |
| Molecular weight          | No information available. |
| Volatility                | No information available. |
| Saturation concentration  | No information available. |
| Critical temperature      | No information available. |
| Volatile organic compound | No information available. |

## 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. |
|-----------|----------------------------------------|

### 10.3. Possibility of hazardous reactions

|                                    |                 |
|------------------------------------|-----------------|
| Possibility of hazardous reactions | Not determined. |
|------------------------------------|-----------------|

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### 10.4. Conditions to avoid

Conditions to avoid                      Avoid excessive heat for prolonged periods of time.

### 10.5. Incompatible materials

Materials to avoid                      Not determined.

### 10.6. Hazardous decomposition products

Hazardous decomposition products                      Oxides of carbon. Hydrogen cyanide (HCN).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

ATE oral (mg/kg)                      3,571.43

#### Acute toxicity - dermal

ATE dermal (mg/kg)                      2,142.86

#### Acute toxicity - inhalation

ATE inhalation (vapours mg/l)                      3.57

#### Skin corrosion/irritation

Skin corrosion/irritation                      Causes severe burns.

#### Serious eye damage/irritation

Serious eye damage/irritation                      Causes severe burns.

#### Respiratory sensitisation

Respiratory sensitisation                      May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Skin sensitisation

Skin sensitisation                      May cause an allergic skin reaction.

#### Germ cell mutagenicity

Genotoxicity - in vitro                      No information available.

#### Carcinogenicity

Carcinogenicity                      No information available.

#### Reproductive toxicity

Reproductive toxicity - fertility                      No information available.

#### Specific target organ toxicity - single exposure

STOT - single exposure                      No information available.

#### Specific target organ toxicity - repeated exposure

STOT - repeated exposure                      No information available.

#### Aspiration hazard

Aspiration hazard                      No information available.

Inhalation                      Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Ingestion                      Gastrointestinal symptoms, including upset stomach.

Skin contact                      Causes severe burns. May cause an allergic skin reaction.

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**Eye contact** Causes severe burns.

### Toxicological information on ingredients.

#### ALLYL ISOTHIOCYANATE

##### Acute toxicity - oral

ATE oral (mg/kg) 500.0

##### Acute toxicity - dermal

ATE dermal (mg/kg) 300.0

##### Acute toxicity - inhalation

ATE inhalation (vapours  
mg/l) 0.5

### SECTION 12: Ecological information

**Ecotoxicity** Very toxic to aquatic life.

#### 12.1. Toxicity

**Toxicity** Toxic to aquatic life with long lasting effects.

### Ecological information on ingredients.

#### ALLYL ISOTHIOCYANATE

##### Acute aquatic toxicity

LE(C)<sub>50</sub> 0.01 < L(E)C<sub>50</sub> ≤ 0.1

M factor (Acute) 10

##### Chronic aquatic toxicity

NOEC 0.01 < NOEC ≤ 0.1

Degradability Non-rapidly degradable

M factor (Chronic) 1

#### 12.2. Persistence and degradability

**Persistence and degradability** There are no data on the degradability of this product.

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** No information available.

#### 12.4. Mobility in soil

**Mobility** Not determined.

#### 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** Not determined.

### SECTION 13: Disposal considerations

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### 13.1. Waste treatment methods

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>General information</b> | Do not puncture or incinerate, even when empty. Waste should be treated as controlled waste.                                |
| <b>Disposal methods</b>    | Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. |

### SECTION 14: Transport information

|                |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| <b>General</b> | Wear protective clothing as described in Section 8 of this safety data sheet. |
|----------------|-------------------------------------------------------------------------------|

#### 14.1. UN number

|                  |      |
|------------------|------|
| UN No. (ADR/RID) | 1759 |
| UN No. (IMDG)    | 1759 |
| UN No. (ICAO)    | 1759 |
| UN No. (ADN)     | 1759 |

#### 14.2. UN proper shipping name

|                                |                                                         |
|--------------------------------|---------------------------------------------------------|
| Proper shipping name (ADR/RID) | CORROSIVE SOLID, N.O.S. (CONTAINS ALLYL ISOTHIOCYANATE) |
| Proper shipping name (IMDG)    | CORROSIVE SOLID, N.O.S. (CONTAINS ALLYL ISOTHIOCYANATE) |
| Proper shipping name (ICAO)    | CORROSIVE SOLID, N.O.S. (CONTAINS ALLYL ISOTHIOCYANATE) |
| Proper shipping name (ADN)     | CORROSIVE SOLID, N.O.S. (CONTAINS ALLYL ISOTHIOCYANATE) |

#### 14.3. Transport hazard class(es)

|                             |     |
|-----------------------------|-----|
| ADR/RID class               | 8   |
| ADR/RID classification code | C10 |
| ADR/RID label               | 8   |
| IMDG class                  | 8   |
| ICAO class/division         | 8   |
| ADN class                   | 8   |

#### 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

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Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

|                                        |          |
|----------------------------------------|----------|
| EmS                                    | F-A, S-B |
| ADR transport category                 | 3        |
| Emergency Action Code                  | 2X       |
| Hazard Identification Number (ADR/RID) | 80       |
| Tunnel restriction code                | (E)      |

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

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 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).<br>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).<br>Commission Regulation (EU) No 2015/830 of 28 May 2015. |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Seveso Directive - Control of major accident hazards H2 4130.1 E1

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

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### Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.  
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.  
 CAS: Chemical Abstracts Service.  
 DNEL: Derived No Effect Level.  
 IATA: International Air Transport Association.  
 IMDG: International Maritime Dangerous Goods.  
 Kow: Octanol-water partition coefficient.  
 LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.  
 LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).  
 PBT: Persistent, Bioaccumulative and Toxic substance.  
 PNEC: Predicted No Effect Concentration.  
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.  
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.  
 vPvB: Very Persistent and Very Bioaccumulative.  
 IARC: International Agency for Research on Cancer.  
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.  
 cATpE: Converted Acute Toxicity Point Estimate.  
 BCF: Bioconcentration Factor.  
 BOD: Biochemical Oxygen Demand.  
 EC<sub>50</sub>: 50% of maximal Effective Concentration.  
 LOAEC: Lowest Observed Adverse Effect Concentration.  
 LOAEL: Lowest Observed Adverse Effect Level.  
 NOAEC: No Observed Adverse Effect Concentration.  
 NOAEL: No Observed Adverse Effect Level.  
 NOEC: No Observed Effect Concentration.  
 LOEC: Lowest Observed Effect Concentration.  
 DMEL: Derived Minimal Effect Level.  
 EL50: Exposure Limit 50  
 hPa: Hectopascal  
 LL50: Lethal Loading fifty  
 OECD: Organisation for Economic Co-operation and Development  
 POW: Octanol-water partition coefficient  
 SCBA: self-contained breathing apparatus  
 STP: Sewage Treatment Plant  
 VOC: Volatile Organic Compounds

### Classification abbreviations and acronyms

Acute Tox. = Acute toxicity  
 Aquatic Acute = Hazardous to the aquatic environment (acute)  
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

### Key literature references and sources for data

Supplier's information.

### Classification procedures according to Regulation (EC) 1272/2008

Skin Corr. 1C - H314: Calculation method. Skin Sens. 1 - H317: Calculation method. Acute Tox. 3 - H331: Calculation method. Resp. Sens. 1 - H334: Calculation method. Aquatic Acute 1 - H400: Calculation method. Aquatic Chronic 2 - H411: Calculation method.

### Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

### Revision date

26/04/2023

## E2 MUSTARD

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Version number</b>            | 1.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>SDS number</b>                | 65501                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>SDS status</b>                | Approved.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Hazard statements in full</b> | H226 Flammable liquid and vapour.<br>H302 Harmful if swallowed.<br>H311 Toxic in contact with skin.<br>H314 Causes severe skin burns and eye damage.<br>H317 May cause an allergic skin reaction.<br>H318 Causes serious eye damage.<br>H330 Fatal if inhaled.<br>H331 Toxic if inhaled.<br>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.<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. |
| <b>Signature</b>                 | Jitendra Panchal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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