

SAFETY DATA SHEET

ED4000

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

1.1. Product identifier

Product name ED4000

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

Identified uses Printing ink.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Electra Polymers Ltd
Roughway Mill,
Roughway Lane
Tonbridge
Kent TN11 9SG
UK
Tel: +44 1732 811118
Fax: +44 1732 811119
sds@electrapolymers.com

1.4. Emergency telephone number

Emergency telephone +44 (0)1732 811 118 (08.30 - 17.00 GMT)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Eye Irrit. 2 - H319

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xi;R36.

Human health The product contains small amounts of organic solvents. Considered to be a low inhalation hazard at normal workplace temperatures.

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements H319 Causes serious eye irritation.

Precautionary statements P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/ attention.

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Supplementary precautionary statements P264 Wash contaminated skin thoroughly after handling.

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

| | | |
|---|--|--|
| 2-(2-BUTOXYETHOXY)ETHANOL 10-30% | | |
| CAS number: 112-34-5 | EC number: 203-961-6 | REACH registration number: 01-2119475104-44-XXXX |
| Classification Eye Irrit. 2 - H319 | Classification (67/548/EEC or 1999/45/EC) Xi;R36 | |
| Methoxypropoxypropanol 10-30% | | |
| CAS number: 34590-94-8 | REACH registration number: 01-2119450011-60-XXXX | |
| Classification Not Classified | Classification (67/548/EEC or 1999/45/EC) - | |

The Full Text for all R-Phrases and Hazard Statements are 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

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| General information | No specific recommendations. Get medical attention if any discomfort continues. |
| Inhalation | Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues. |
| Ingestion | Do not induce vomiting. Get medical attention if any discomfort continues. |
| Skin contact | Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues. |
| Eye contact | Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. |

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

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|----------------------------|---|
| General information | Treat symptomatically. |
| Inhalation | No specific symptoms known. |
| Ingestion | No specific symptoms known. May cause irritation. |
| Skin contact | No specific symptoms known. |
| Eye contact | Causes serious eye irritation. |

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

Notes for the doctor No specific recommendations.

SECTION 5: Firefighting measures

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5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

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 None.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting No specific firefighting precautions known.

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 Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions For personal protection, see Section 8.

Advice on general occupational hygiene Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Wash after use and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Store in tightly-closed, 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.

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SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

2-(2-BUTOXYETHOXY)ETHANOL

Long-term exposure limit (8-hour TWA): WEL 10 ppm 67.5 mg/m³

Short-term exposure limit (15-minute): WEL 15 ppm 101.2 mg/m³

Methoxypropoxypropanol

Long-term exposure limit (8-hour TWA): WEL 50 ppm 308 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

DNEL Industry - Inhalation; Short term : mg/m³
Industry - Dermal; Long term : 20 mg/kg/day
Industry - Inhalation; Long term : 67.5 mg/m³

PNEC - Fresh water; 1 mg/l
- Marine water; 0.1 mg/l
- Sediment; 4 mg/kg
- Soil; 0.4 mg/kg

Methoxypropoxypropanol (CAS: 34590-94-8)

DNEL Workers - Dermal; Long term systemic effects: 283 mg/kg
Workers - Inhalation; Long term systemic effects: 308 mg/kg

PNEC - Fresh water; 19 mg/l
- Marine water; 1.9 mg/l
- Intermittent release; 190 mg/l
- STP; 4168 mg/l
- Sediment (Freshwater); 70.2 mg/l
- Sediment (Marinewater); 7.02 mg/l
- Soil; 2.74 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

Wear eye protection. Wear face protection.

Hand protection

Wear protective gloves.

Other skin and body protection

Wear apron or protective clothing in case of contact.

Hygiene measures

Do not eat, drink or smoke when using this product. Use engineering controls to reduce air contamination to permissible exposure level. Wash after use and before eating, smoking and using the toilet. Provide eyewash station. Wash contaminated clothing before reuse.

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| Respiratory protection | No specific requirements are anticipated under normal conditions of use. |
| Environmental exposure controls | Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. |

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

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| Appearance | Paste. |
| Colour | Black. |
| Odour | Mild. |
| Odour threshold | Not determined. |
| pH | Not determined. |
| Melting point | Not determined. |
| Initial boiling point and range | Not determined. |
| Flash point | ~ 79°C Not specified. Estimated value. |
| Evaporation rate | Not determined. |
| Evaporation factor | Not determined. |
| Flammability (solid, gas) | Not determined. |
| Upper/lower flammability or explosive limits | Not determined. |
| Other flammability | Not determined. |
| Vapour pressure | Not determined. |
| Vapour density | Not determined. |
| Relative density | Not determined. |
| Bulk density | Not determined. |
| Solubility(ies) | Slightly soluble in water. |
| Partition coefficient | Not determined. |
| Auto-ignition temperature | Not determined. |
| Decomposition Temperature | Not determined. |
| Viscosity | Kinematic viscosity > 20.5 mm ² /s. |
| Explosive properties | Not considered to be explosive. |
| Explosive under the influence of a flame | No |
| Oxidising properties | The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising. |
| Comments | Information given is applicable to the product as supplied. |

9.2. Other information

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| Other information | None. |
| Refractive index | Not determined. |

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| Particle size | Not applicable. |
| Molecular weight | Not applicable. |
| Volatility | Not determined. |
| Saturation concentration | Not determined. |
| Critical temperature | Not determined. |
| Volatile organic compound | Not determined. |

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 Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Keep away from heat, sparks and open flame. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Strong alkalis. Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Acrid smoke or fumes. Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data No information available.

Human skin model test No information available.

Extreme pH Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

ED4000**Germ cell mutagenicity****Genotoxicity - in vitro** Based on available data the classification criteria are not met.**Genotoxicity - in vivo** Based on available data the classification criteria are not met.**Carcinogenicity****Carcinogenicity** Based on available data the classification criteria are not met. Does not contain any substances known to be carcinogenic.**Reproductive toxicity****Reproductive toxicity - fertility** Based on available data the classification criteria are not met. Does not contain any substances known to be toxic to reproduction.**Reproductive toxicity - development** Based on available data the classification criteria are not met. Does not contain any substances known to be toxic to reproduction.**Specific target organ toxicity - single exposure****STOT - single exposure** Based on available data the classification criteria are not met.**Specific target organ toxicity - repeated exposure****STOT - repeated exposure** Based on available data the classification criteria are not met.**Aspiration hazard****Aspiration hazard** Based on available data the classification criteria are not met.**General information**

The product contains small amounts of organic solvents. Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapour concentrations.

Inhalation May cause respiratory system irritation.**Ingestion** No specific health hazards known. May cause discomfort if swallowed.**Skin contact** No specific health hazards known. May cause irritation.**Eye contact** Causes serious eye irritation.**Route of entry** Inhalation Skin absorption Skin and/or eye contact Ingestion**Target organs** No specific target organs known.**Medical symptoms** May cause discomfort if swallowed.**Toxicological information on ingredients.****2-(2-BUTOXYETHOXY)ETHANOL****Acute toxicity - oral****Acute toxicity oral (LD₅₀ mg/kg)** 2,410.0**Species** Mouse**ATE oral (mg/kg)** 2,410.0**Acute toxicity - dermal****Acute toxicity dermal (LD₅₀ mg/kg)** 2,764.0**Species** Mouse

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ATE dermal (mg/kg) 2,764.0

SECTION 12: Ecological Information**Ecotoxicity** Not regarded as dangerous for the environment.**12.1. Toxicity****Acute toxicity - fish** Not determined.**Acute toxicity - aquatic invertebrates** Not determined.**Acute toxicity - aquatic plants** Not determined.**Acute toxicity - microorganisms** Not determined.**Acute toxicity - terrestrial** Not determined.**Chronic toxicity - fish early life stage** Not determined.**Short term toxicity - embryo and sac fry stages** Not determined.**Chronic toxicity - aquatic invertebrates** Not determined.**Ecological information on ingredients.****2-(2-BUTOXYETHOXY)ETHANOL****Acute toxicity - fish** LC50, 96 hours: > 100 mg/l, *Leuciscus idus* (Golden orfe)**Acute toxicity - aquatic invertebrates** EC₅₀, 48 hours: > 100 mg/l, *Daphnia magna***Acute toxicity - aquatic plants** IC₅₀, 72 hours: > 50 mg/l, Freshwater algae**12.2. Persistence and degradability****Persistence and degradability** This product is not expected to be readily biodegradable.**Phototransformation** Not determined.**Stability (hydrolysis)** Not determined.**Biodegradation** Not determined.**Biological oxygen demand** Not determined.**Chemical oxygen demand** Not determined.**12.3. Bioaccumulative potential****Partition coefficient** Not determined.**12.4. Mobility in soil****Adsorption/desorption coefficient** Not determined.**Henry's law constant** Not determined.

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Surface tension 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 None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

14.6. Special precautions for user

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

National regulations Control of Substances Hazardous to Health Regulations 2002 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
Health and Safety at Work etc. Act 1974 (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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

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| 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). 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). Dangerous Preparations Directive 1999/45/EC. Dangerous Substances Directive 67/548/EEC. |
| Health and environmental listings | None of the ingredients are listed. |
| Authorisations (Title VII Regulation 1907/2006) | No specific authorisations are known for this product. |
| Restrictions (Title VIII Regulation 1907/2006) | No specific restrictions on use are known for this product. |

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

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|---|---|
| Classification procedures according to Regulation (EC) 1272/2008 | : Calculation method. |
| Issued by | HS&E Manager. |
| Revision date | 22/02/2017 |
| Revision | 5 |
| Supersedes date | 16/06/2016 |
| Risk phrases in full | R36 Irritating to eyes. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| Hazard statements in full | H319 Causes serious eye irritation. |

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.