

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** 1,2-DIAMINOETHANE

**CAS number:** 107-15-3

**EINECS number:** 203-468-6

**Index number:** 612-006-00-6

**Product code:** B8A67702

**Synonyms:** ETHYLENEDIAMINE

1,2-ETHANE DIAMINE

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

**Use of substance / mixture:** PC21: Laboratory chemicals. ERC1: Manufacture of substances

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

**Company name:** Philip Harris Ltd

2 Gregory Street

Hyde

Cheshire

SK14 4HR

United Kingdom

**Tel:** +44 (0)845 1200 506

**Fax:** +44 (0)161 367 2140

**Email:** [enquiries@philipharris.co.uk](mailto:enquiries@philipharris.co.uk)

**1.4. Emergency telephone number**

**Emergency tel:** +44 (0) 845 1200 506

**Manufacturer:** Eurolab Supplies Limited

Road 5

Winsford Industrial Estate

Winsford

Cheshire

CW1 3AZ

Tel: 01606 594593

Fax: 01606 594603

Email: [rachel@eurolabsupplies.co.uk](mailto:rachel@eurolabsupplies.co.uk)

**Section 2: Hazards identification**

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## 2.1. Classification of the substance or mixture

**Classification under CLP:** Flam. Liq. 3: H226; Acute Tox. 4: H312; Acute Tox. 4: H302; Skin Corr. 1B: H314; Resp. Sens. 1: H334; Skin Sens. 1: H317

**Classification under CHIP:** -: R10; Xn: R21/22; C: R34; Sens.: R42/43

**Most important adverse effects:** Flammable liquid and vapour. Harmful in contact with skin. Harmful if swallowed. Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

## 2.2. Label elements

### Label elements under CLP:

**Hazard statements:** H226: Flammable liquid and vapour.  
H312: Harmful in contact with skin.  
H302: Harmful if swallowed.  
H314: Causes severe skin burns and eye damage.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317: May cause an allergic skin reaction.

**Signal words:** Danger

**Hazard pictograms:** GHS02: Flame  
GHS08: Health hazard  
GHS05: Corrosion  
GHS07: Exclamation mark



## 2.3. Other hazards

## Section 3: Composition/information on ingredients

### 3.1. Substances

**Chemical identity:** 1,2-DIAMINOETHANE

**CAS number:** 107-15-3

**EINECS number:** 203-468-6

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Consult a doctor.

**Eye contact:** Bathe the eye with running water for 15 minutes.

**Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a doctor.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration.

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

**Skin contact:** Causes burns

**Eye contact:** Corrosive

**Inhalation:** Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

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

**Immediate / special treatment:** No data available.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

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

**Exposure hazards:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide. In combustion emits toxic fumes of nitrogen oxides. Vapour may travel considerable distance to source of ignition and flash back. Danger of containers bursting upon heating. Forms explosive air-vapour mixture.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## Section 6: Accidental release measures

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

**Personal precautions:** Use personal protection equipment. Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures. Remove sources of ignition. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### 6.2. Environmental precautions

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not discharge into drains or rivers. Discharge into the environment must be avoided.

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

**Clean-up procedures:** Contain spillage, and then collect with an electronically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

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## 6.4. Reference to other sections

**Reference to other sections:** Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - no smoking. Take measures to prevent build up of electrostatic charge.

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

**Storage conditions:** Keep containers tightly sealed. Store in cool, Dry place in tightly closed containers. Ensure good ventilation/exhaustion at the work place. Keep away from heat, sparks and open flames. Store under inert gas. Air and moisture sensitive. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### 7.3. Specific end use(s)

**Specific end use(s):** Apart from uses mentioned in section 1.2 no other specific uses are stipulated.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Workplace exposure limits:

#### Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	25 mg/m <sup>3</sup>	-	-	-

### DNEL/PNEC Values

**DNEL / PNEC** No data available.

### 8.2. Exposure controls

**Engineering measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full face respirator with multi purpose combination (US) or type AXBEK (EN14387 respirator cartridges as a back up to engineering controls. If the respirator is the sole means of protection use a full face supplied air respirator. Use respirators and components tested & approved under appropriate government standards eg CEN (EU) or NIOSH (US).

**Hand protection:** For long term contact use Butyl caoutchouc butyl rubber/ FKM fluoro rubber gloves. 0.70mm thickness. 480 breakthrough time. By short-term hand contact wear Nitrile Rubber Gloves, 0.12mm thick with a breakthrough time of 60-120 mins. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique

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(without touching the gloves outer surface) to avoid skin contact with this product.

Dispose of contaminated gloves after use.

Wash and dry hands.

**Eye protection:** Face shield and safety glasses. Use equipment for eyes protection test and approved under appropriate government statements such as NIOSH (US) or EN 166(EU)

**Skin protection:** Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Environmental:** Prevent further leakage or spillage if safe to do so. Prevent from entering in public sewers or the immediate environment.

## Section 9: Physical and chemical properties

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

**State:** Liquid

**Colour:** No data available

**Solubility in water:** Soluble

**Boiling point/range°C:** 118

**Flammability limits %: lower:** 2.7

**Flash point°C:** 38

**pH:** 12.2 @ 110 g/l

**Melting point/range°C:** 8.5

**upper:** 16

**Vapour pressure:** 13hPa A 20

### 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** No data available.

### 10.2. Chemical stability

**Chemical stability:** Absorbs carbon dioxide (CO<sub>2</sub>) from air. Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** No data available.

### 10.4. Conditions to avoid

**Conditions to avoid:** Air. Moist air. Exposure to moisture. Heat. Flames. Sources of ignition. Sparks

### 10.5. Incompatible materials

**Materials to avoid:** Oxidising agents. Phosphorus halides

Aldehydes

rganic halides

[cont...]

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## 10.6. Hazardous decomposition products

**Haz. decomp. products:** Other decomposition products - No data available.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

Route	Species	Test	Value	Units
SCU	RAT	LD50	300	mg/kg
ORL	RAT	LD50	1200	mg/kg
ORL	MUS	LD50	1	gm/kg

#### Relevant hazards for substance:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	DRM ING	Based on test data
Skin corrosion/irritation	DRM	Based on test data
Serious eye damage/irritation	OPT	Based on test data
Respiratory/skin sensitisation	INH DRM	Based on test data

### Symptoms / routes of exposure

**Skin contact:** Causes burns

**Eye contact:** Corrosive

**Inhalation:** Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

## Section 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity values:

Species	Test	Value	Units
FISH	96H LC50	115.7	mg/l
Daphnia magna	48H EC50	3	mg/l
ALGAE	48H EC50	151	mg/l

### 12.2. Persistence and degradability

**Persistence and degradability:** Readily biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No data available.

### 12.4. Mobility in soil

**Mobility:** No data available.

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## 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:** Very toxic to aquatic organisms. Discharge into the environment must be avoided.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Disposal of packaging:** Dispose of as unused product.

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

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN1604

### 14.2. UN proper shipping name

**Shipping name:** ETHYLENEDIAMINE

### 14.3. Transport hazard class(es)

**Transport class:** 8 (3)

### 14.4. Packing group

**Packing group:** II

### 14.5. Environmental hazards

**Environmentally hazardous:** No

**Marine pollutant:** No

### 14.6. Special precautions for user

**Tunnel code:** D/E

**Transport category:** 2

## Section 15: Regulatory information

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

### 15.2. Chemical Safety Assessment

## Section 16: Other information

### Other information

**Phrases used in s.2 and s.3:** H226: Flammable liquid and vapour.

H302: Harmful if swallowed.

[cont...]

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H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

H317: May cause an allergic skin reaction.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

R10: Flammable.

R21/22: Harmful in contact with skin and if swallowed.

R34: Causes burns.

R42/43: May cause sensitisation by inhalation and skin contact.

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

DNEL = derived no effect level

LD50 = median lethal dose

LC50 = median lethal concentration

EC50 = median effective concentration

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

SCU = subcutaneous

SKN = skin

DRM = dermal

OCC = ocular/corneal

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.