



## SAFETY DATA SHEET

ETHYL ACETATE

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Compilation date: 20/05/2014

Revision date: 13/10/2015

Revision No: 2

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

#### 1.1. Product identifier

**Product name:** ETHYL ACETATE

**CAS number:** 141-78-6

**EINECS number:** 205-500-4

**Index number:** 607-022-00-5

**Product code:** GPS9015

**Synonyms:** ETHYL ESTER

ETHYL ETHANOATE

VINEGAR NAPHTHA

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

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

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

**Company name:** Atom Scientific Ltd

Unit 2B East Tame Business Park

Rexcine Way

Hyde

Cheshire

SK14 4GX

United Kingdom

**Tel:** +44 161 366 5123

**Fax:** +44 170 433 7167

**Email:** technical@atomscientific.com

#### 1.4. Emergency telephone number

**Emergency tel:** +44 161 366 5123

(office hours only)

### Section 2: Hazards identification

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

**Classification under CLP:** Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336; -: EUH066

**Most important adverse effects:** Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness. Repeated exposure may cause skin dryness or cracking.

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## 2.2. Label elements

### Label elements under CLP:

**Hazard statements:** H225: Highly flammable liquid and vapour.  
H319: Causes serious eye irritation.  
H336: May cause drowsiness or dizziness.  
EUH066: Repeated exposure may cause skin dryness or cracking.

**Signal words:** Danger

**Hazard pictograms:** GHS02: Flame  
GHS07: Exclamation mark



**Precautionary statements:** P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3. Other hazards

**Other hazards:** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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

## Section 3: Composition/information on ingredients

### 3.1. Substances

**Chemical identity:** ETHYL ACETATE

**CAS number:** 141-78-6

**EINECS number:** 205-500-4

**Contains:** Molecular Formula C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>  
Molecular Weight 88.11 g/mol

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Wash immediately with plenty of soap and water. Consult a doctor.

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor.

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

**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. If unconscious, check for breathing and apply artificial respiration if necessary. Consult a doctor.

[cont...]

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

**Skin contact:** May be harmful if absorbed through the skin. There may be mild irritation at the site of contact.

**Eye contact:** Causes serious eye irritation The eyes may water profusely. The vision may become blurred.

**Ingestion:** May be harmful if swallowed. There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Nausea and stomach pain may occur. There may be vomiting.

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation. There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing. May cause drowsiness and dizziness.

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

**Immediate / special treatment:** Show this safety data sheet to the doctor in attendance.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Water spray. Alcohol resistant foam. Dry chemical powder. Carbon dioxide.

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

**Exposure hazards:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self contained breathing apparatus for fire fighting if necessary. Use water spray to cool unopened containers.

## Section 6: Accidental release measures

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

**Personal precautions:** Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Eliminate all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Use personal protective equipment.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Prevent further leakage or spillage if safe to do so.

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

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

### 6.4. Reference to other sections

**Reference to other sections:** For personal protection, see section 8. For waste disposal, see section 13.

[cont...]

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## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

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

**Storage conditions:** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Flammable liquids.

### 7.3. Specific end use(s)

**Specific end use(s):** No other specific uses stipulated other than the uses mentioned in section 1.2.

## 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    | 200 ppm    | 400 ppm      | -          | -            |

### 8.1. DNEL/PNEC Values

#### ETHYL ACETATE

| Type | Exposure     | Value                  | Population | Effect                                      |
|------|--------------|------------------------|------------|---|
| DNEL | Inhalation   | 1468 mg/m <sup>3</sup> | Workers    | Acute systemic effects                      |
| DNEL | Inhalation   | 1468 mg/m <sup>3</sup> | Workers    | Acute local effects                         |
| DNEL | Skin contact | 63 mg/kg BW/d          | Workers    | Long-term systemic effects                  |
| DNEL | Inhalation   | 734 mg/m <sup>3</sup>  | Workers    | Long-term systemic effects                  |
| DNEL | Inhalation   | 734 mg/m <sup>3</sup>  | Workers    | Long-term local effects                     |
| DNEL | Inhalation   | 734 mg/m <sup>3</sup>  | Consumers  | Acute local effects, Acute systemic effects |
| DNEL | Skin contact | 37 mg/kg BW/d          | Consumers  | Long-term systemic effects                  |

[cont...]

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|      |            |                       |           |                            |
|------|------------|-----------------------|-----------|----------------------------|
| DNEL | Inhalation | 367 mg/m <sup>3</sup> | Consumers | Long-term systemic effects |
| DNEL | Ingestion  | 4.5 mg/kg BW/d        | Consumers | Long-term systemic effects |
| DNEL | Inhalation | 367 mg/m <sup>3</sup> | Consumers | Long-term local effects    |

### 8.2. Exposure controls

**Engineering measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after 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 ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with application laws and good laboratory practises. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Splash contact - Material: butyl rubber. Minimum layer thickness: 0.3mm. Break through time: 8hrs.

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

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

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

### Section 9: Physical and chemical properties

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

**State:** Liquid

**Colour:** Colourless

**Odour:** Alcoholic

**Solubility in water:** Soluble

**Boiling point/range °C:** 76.5 - 77.5

**Melting point/range °C:** 84

**Flammability limits %: lower:** 2.2

**upper:** 11.5

**Flash point °C:** -3.0

[cont...]

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**Autoflammability°C:** 427

**Part.coeff. n-octanol/water:** log Pow: 0.73

**Relative density:** 0.90 gm/cm<sup>3</sup>

**Vapour pressure:** 97.3 hPa @ 20C

## 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:** Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** No data available.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Flames. Sparks. Extremes of temperature and direct sunlight.

### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** Other decomposition products - no data available. In the event of fire: see section 5

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

| Route      | Species | Test    | Value  | Units             |
|------------|---------|---------|--------|-------------------|
| INHALATION | MOUSE   | LC50 2H | 45,000 | mg/m <sup>3</sup> |
| ORAL       | RAT     | LD50    | 5,620  | mg/kg             |
| DERMAL     | RABBIT  | LD50    | 18,000 | mg/kg             |

#### Relevant hazards for substance:

| Hazard                        | Route | Basis              |
|-------------------------------|-------|--------------------|
| Serious eye damage/irritation | OPT   | Based on test data |
| STOT-single exposure          | -     | Based on test data |

## Symptoms / routes of exposure

**Skin contact:** May be harmful if absorbed through the skin. There may be mild irritation at the site of contact.

**Eye contact:** Causes serious eye irritation The eyes may water profusely. The vision may become blurred.

[cont...]

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**Ingestion:** May be harmful if swallowed. There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Nausea and stomach pain may occur. There may be vomiting.

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation. There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing. May cause drowsiness and dizziness.

**Other information:** RTECS: AH5425000 Inhalation of high concentrations may cause:, Headache, Drowsiness, Dizziness, Vomiting, narcosis, anemia, Central nervous system depression  
Kidney - Irregularities - Based on Human Evidence

## Section 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity values:

| Species                                      | Test     | Value         | Units |
|--|----------|---------------|-------|
| Rainbow Trout ( <i>Oncorhynchus mykiss</i> ) | 96H LC50 | 350 - 600     | mg/l  |
| Water Flea ( <i>Daphnia magna</i> )          | 24H EC50 | 2,300 - 3,090 | mg/l  |
| Fathead Minnow ( <i>Pimphales promelas</i> ) | 96H LC50 | 220 - 250     | mg/l  |
| Water flea ( <i>Daphnia magna</i> )          | 48H LC50 | 560           | mg/l  |
| Algae  | 24H EC50 | 4,300         | mg/l  |
| Selenastrum                                  | 72H EC50 | 1,800 - 3,200 | mg/l  |

### 12.2. Persistence and degradability

**Persistence and degradability:** Result: 79 % - Readily biodegradable.  
(OECD Test Guideline 301D)

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** - 3 d  
Bioconcentration factor (BCF): 30

### 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:** No data available.

## Section 13: Disposal considerations

[cont...]

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## 13.1. Waste treatment methods

**Disposal operations:** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Transfer to a suitable container and arrange for collection by specialised 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:** UN1173

### 14.2. UN proper shipping name

**Shipping name:** ETHYL ACETATE

### 14.3. Transport hazard class(es)

**Transport class:** 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

**Specific regulations:** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Phrases used in s.2 and 3:** EUH066: Repeated exposure may cause skin dryness or cracking.

H225: Highly flammable liquid and vapour.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

[cont...]



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**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.