



SAFETY DATA SHEET

ETHANOL 96%

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Compilation date: 25/03/2014

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Revision No: 2

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

1.1. Product identifier

Product name: ETHANOL 96%

CAS number: 64-17-5

EINECS number: 200-578-6

Index number: 603-002-00-5

Product code: GPS9014

Synonyms: ABSOLUTE ALCOHOL

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

Most important adverse effects: Highly flammable liquid and vapour.

2.2. Label elements

Label elements under CLP:

Hazard statements: H225: Highly flammable liquid and vapour.

Signal words: Danger

Hazard pictograms: GHS02: Flame

[cont...]

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Precautionary statements: P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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:

ETHANOL

EINECS	CAS	CHIP Classification	CLP Classification	Percent
200-578-6	64-17-5	Substance with a Community workplace exposure limit.	Flam. Liq. 2: H225	>90%

Non-hazardous ingredients:

WATER

EINECS	CAS	CHIP Classification	CLP Classification	Percent
-	7732-18-5	-	-	1-10%

Contains: Molecular formula: C₂H₆O

Section 4: First aid measures

4.1. Description of first aid measures

- Skin contact:** Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
- Eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice.
- Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with water. Consult a doctor.
- Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a doctor.

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:** There may be irritation and redness. The eyes may water profusely. The vision may become blurred.
- Ingestion:** Toxic if swallowed. There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. There may be irritation of the throat. There may be vomiting and diarrhoea. Nausea and stomach pain may occur.

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

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. Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Highly flammable. In combustion emits toxic fumes. Forms explosive air-vapour mixture. Vapour may travel considerable distance to source of ignition and flash back.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self contained breathing apparatus for fire fighting if necessary. Wear protective clothing to prevent contact with skin and eyes. Use water spray to cool unopened containers.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. 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. Refer to section 8 of SDS for personal protection details.

6.2. Environmental precautions

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

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.

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 the build up of electrostatic charge. For precautions see section 2.2.

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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. Hygroscopic

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

Hazardous ingredients:

ETHANOL

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	1920 mg/m ³	-	-	-

8.1. 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 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. Full contact - Material: butyl rubber. Minimum layer thickness: 0.3mm. Break through time: 8hrs. Splash contact - Material: Nitrile rubber. Minimum layer thickness: 0.2 mm. Break through time: 38 mins. If used in solution, or mixed with substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

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).

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Skin protection: Impermeable protective clothing. 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. Do not let product enter drains.

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: 78.3

Melting point/range °C: -114

Flammability limits %: lower: 3.3

upper: 19

Flash point °C: 14

Autoflammability °C: 363

Vapour pressure: 59.5 hPa @ 20C

Relative density: 0.789

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. Stable at room temperature.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

10.4. Conditions to avoid

Conditions to avoid: Heat. Hot surfaces. Sources of ignition. Flames. Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Materials to avoid: Alkali metals. Ammonia. Oxidizing agents. Peroxides.

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

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Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	7,060	mg/kg
INHALATION	RAT	10H LC50	20,000	ppm

Hazardous ingredients:

ETHANOL

IVN	RAT	LD50	1440	mg/kg
ORL	MUS	LD50	3450	mg/kg
ORL	RAT	LD50	7060	mg/kg

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: There may be irritation and redness. The eyes may water profusely. The vision may become blurred.

Ingestion: Toxic if swallowed. There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. There may be irritation of the throat. There may be vomiting and diarrhoea. Nausea and stomach pain may occur.

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

Other information: RTECS: KQ6300000. Central nervous system depression, narcosis, damage to the heart. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

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.

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12.6. Other adverse effects

Other adverse effects: No data available.

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 in igniting 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: UN1170

14.2. UN proper shipping name

Shipping name: ETHANOL (ETHYL ALCOHOL)

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

Special precautions: No special precautions.

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: For this product a chemical safety assessment was not carried out.

Section 16: Other information

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Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

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

Phrases used in s.2 and 3: H225: Highly flammable liquid and vapour.

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.