

# SAFETY DATA SHEET

TOLUENE 99.5% ACS

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Compilation date: 23/10/2018

Revision No: 1

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

### 1.1. Product identifier

**Product name:** TOLUENE 99.5% ACS

**CAS number:** 108-88-3

**EINECS number:** 203-625-9

**Product code:** GPS1009

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

**Use of substance / mixture:** PC21: Laboratory chemicals.

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

**Company name:** Atom Scientific Ltd

2b East Tame Business Park

Hyde

Manchester

SK14 4GX

**Tel:** 0161 366 5123

**Fax:** 01704 337167

**Email:** technical@atomscientific.com

### 1.4. Emergency telephone number

**Emergency tel:** 07833453806

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** Flam. Liq. 2: H225; STOT SE 3: H336; Skin Irrit. 2: H315; Repr. 2: H361d; STOT RE 2: H373; Asp. Tox. 1: H304

**Classification under CHIP:** F: R11; Xi: R38; Xn: R48/20; Xn: R63; Xn: R65; -: R67

**Most important adverse effects:** Highly flammable liquid and vapour. May be fatal if swallowed and enters airways.  
Causes skin irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

### 2.2. Label elements

#### Label elements under CLP:

**Hazard statements:** H225: Highly flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H336: May cause drowsiness or dizziness.

H361d: Suspected of damaging the unborn child.

H373: May cause damage to organs through prolonged or repeated exposure.

[cont...]

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**Signal words:** Danger

**Hazard pictograms:** GHS02: Flame

GHS07: Exclamation mark

GHS08: Health hazard



**Precautionary statements:** P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P260: Do not breathe dust/fumes/gas/mist/vapours/spray.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P370+378: In case of fire: Use dry powder or dry sand for extinction.  
P403: Store in a well-ventilated place.  
P235: Keep cool.

## 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:** TOLUENE 99.5% ACS

**CAS number:** 108-88-3

**EINECS number:** 203-625-9

**Contains:** Molecular Formula : C<sub>7</sub>H<sub>8</sub>

Molecular Weight : 92.14 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:** Bathe the eye with running water for 15 minutes.

**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.

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

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

[cont...]

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**Ingestion:** No data available.

**Inhalation:** No data available.

**Delayed / immediate effects:** May cause drowsiness or dizziness.

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

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

**Exposure hazards:** Not applicable.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus.

## 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 the area immediately. 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:** Do not discharge into drains or rivers.

### 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 (see section 13).

### 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 the build up of electrostatic charge.

For precautions see section 2.2.

[cont...]

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

**Storage conditions:** Store in cool, well ventilated area. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Handle and store under inert gas.

**Suitable packaging:** Not applicable.

## 7.3. Specific end use(s)

**Specific end use(s):** No special requirement.

## 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
EU	192 mg/m <sup>3</sup>	384 mg/m <sup>3</sup>	191 mg/m <sup>3</sup>	384 mg/m <sup>3</sup>

### 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 breaks and at the end of workday.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Full contact

Material: Fluorinated rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min Splash contact

Material: Fluorinated rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min

**Eye protection:** Face-shield. Safety glasses.

**Skin protection:** Complete suit protecting against chemicals. 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:** Do not let product enter drains. 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:** Colourless

**Odour:** Aromatic

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**Solubility in water:** 0.5 g/l at 15 °C

**Boiling point/range°C:** 110-111

**Melting point/range°C:** -93

**Flammability limits %: lower:** 1.2

**upper:** 7

**Flash point°C:** 4

**Autoflammability°C:** 535

## 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 normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** No data available.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Flames. Sources of ignition.

### 10.5. Incompatible materials

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

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Relevant hazards for substance:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Based on test data
Reproductive toxicity	--	Based on test data
STOT-single exposure	-	Based on test data
STOT-repeated exposure	-	Based on test data
Aspiration hazard	-	Based on test data

### Symptoms / routes of exposure

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** No data available.

[cont...]

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**Inhalation:** No data available.

**Delayed / immediate effects:** May cause drowsiness or dizziness.

## Section 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity values:

Species	Test	Value	Units
FISH	96H LC50	5.8	mg/l
DAPHNIA	48H EC50	6	mg/l
ALGAE	48H EC50	245	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.

### 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:** Toxic to aquatic organisms.

## 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.

**Recovery operations:** Not applicable.

**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:** UN1294

### 14.2. UN proper shipping name

**Shipping name:** ADR/RID: TOLUENE

IMDG: TOLUENE

IATA: Toluene

[cont...]

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## 14.3. Transport hazard class(es)

Transport class: 3

## 14.4. Packing group

Packing group: 2

## 14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

## 14.6. Special precautions for user

Special precautions: No special precautions.

## 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 not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### 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.  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H336: May cause drowsiness or dizziness.  
H361d: Suspected of damaging the unborn child.  
H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.  
R11: Highly flammable.  
R38: Irritating to skin.  
R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
R63: Possible risk of harm to the unborn child.  
R65: Harmful: may cause lung damage if swallowed.  
R67: Vapours may cause drowsiness and dizziness.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive

[cont...]

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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.