

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1 Product identifier

Product Name 4-tert-Butylpyridine
 Synonyms TBP, Pyridine 4-tert-butyl
 Chemical Name 4-tert-Butylpyridine
 Chemical Formula C₉H₁₃N
 CAS No. 3978-81-2
 EC No. 223-614-2
 REACH Registration No. Not applicable.

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

Identified Use(s) PC21 Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Company Identification Ossila Limited
 Address of Supplier Solpro Business Park
 Windsor Street
 Sheffield
 Postal code S4 7WB, UK
 Telephone: +441142999180
 E-mail info@ossila.com
 Office hours 08:00 - 17:00

SECTION 2: HAZARDS IDENTIFICATION
2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP) Skin Irrit. 2: Causes skin irritation
 Eye Irrit. 2A: Causes serious eye irritation

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)
 Product Name 4-tert-Butylpyridine

Hazard Pictogram(s)



GHS07

Signal Word(s) Warning

Hazard Statement(s) H315: Causes skin irritation
 H319: Causes serious eye irritation

Precautionary Statement(s) P302 + P352: IF ON SKIN: Wash with plenty of water.
 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.

2.3 Other hazards

None known.

2.4 Additional Information

Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
3.1 Substances

HAZARDOUS INGREDIENT(S)	CAS No.	%W/W	Hazard Statement(s)
4-tert-Butylpyridine	3978-81-2	<= 100	Skin Irrit. 2 H315 Eye Irrit. 2A H319

3.2 Mixtures

Not applicable.

SECTION 4: FIRST AID MEASURES
4.1 Description of first aid measures

Inhalation Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
 Skin Contact Rinse skin with water. If skin irritation occurs, get medical advice/attention.

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Ingestion Rinse out mouth with water. Get medical advice/attention if you feel unwell.
4.2 Most important symptoms and effects, both acute and delayed
 SECTION 11: Most important symptoms and effects, both acute and delayed
4.3 Indication of any immediate medical attention and special treatment needed
 Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media
 Suitable Extinguishing media As appropriate for surrounding fire.
 Unsuitable extinguishing media As appropriate for surrounding fire.
5.2 Special hazards arising from the substance or mixture
 May decompose in a fire, giving off toxic and irritant vapours.
5.3 Advice for firefighters
 Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
 Provide adequate ventilation. Wear protective clothing as per section 8.
6.2 Environmental precautions
 Avoid release to the environment.
6.3 Methods and material for containment and cleaning up
 Sweep up spilled substance but avoid making dust. Use vacuum equipment for collecting spilt materials, where practicable. Dispose of contents in accordance with local, state or national legislation.
6.4 Reference to other sections
 See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
 Avoid breathing vapours/mist/dust/aerosols. Use only in a well-ventilated area. Wear protective clothing as per section 8. Wash hands thoroughly after handling.
7.2 Conditions for safe storage, including any incompatibilities
 Store in a well-ventilated place. Keep container tightly closed.
 Storage temperature Ambient.
 Storage life Stable under normal conditions.
 Incompatible materials None known.
7.3 Specific end use(s)
 Not known. See Section: 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
 8.1.1 Occupational Exposure Limits No Occupational Exposure Limit assigned.

Occupational Exposure Limits

SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note

Region Source
 EU EU Occupational Exposure Limits
 United Kingdom UK Workplace Exposure Limits EH40/2005 (Third edition, published 2018)

8.2 Exposure controls
 8.2.1. Appropriate engineering controls Ensure adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.
 8.2.2. Personal protection equipment
 Eye Protection Wear eye protection with side protection (EN166).



Skin protection Wear protective clothing and gloves: Impervious gloves (EN 374).





Respiratory protection A suitable mask with filter type A (EN14387 or EN405) may be appropriate.



Thermal hazards None known.

8.2.3. Environmental Exposure Controls Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
	Colour: Colourless/Pale Yellow.
Odour	Not known.
Odour threshold	Not known.
pH	Not known.
Melting point/freezing point	-40 °C (lit.)
Initial boiling point and boiling range	196-197 °C (lit.)
Flash Point	Not known.
Evaporation rate	Not known.
Flammability (solid, gas)	Not known.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	Not known.
Vapour density	Not known.
Density (g/ml)	Not known.
Relative density	Not known.
Solubility(ies)	Solubility (Water): Not known. Solubility (Other): Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not known.
Oxidising properties	Not known.

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

None anticipated.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

Not known.

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	No data available.
Acute toxicity - Skin Contact	No data available.
Acute toxicity - Inhalation	No data available.
Skin corrosion/irritation	No data available.
Serious eye damage/irritation	No data available.
Skin sensitization data	No data available.
Respiratory sensitization data	No data available.
Germ cell mutagenicity	No data available.
Carcinogenicity	No data available.
Reproductive toxicity	No data available.
Lactation	No data available.
STOT - single exposure	No data available.
STOT - repeated exposure	No data available.

Aspiration hazard No data available.
11.2 Other information Not known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity No data available.
 Toxicity - Aquatic invertebrates No data available.
 Toxicity - Fish No data available.
 Toxicity - Algae No data available.
 Toxicity - Sediment Compartment Not classified.
 Toxicity - Terrestrial Compartment Not classified.
12.2 Persistence and Degradation Not known.
12.3 Bioaccumulative potential Not known.
12.4 Mobility in soil Not known.
12.5 Results of PBT and vPvB assessment Not known.
12.6 Other adverse effects Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.
13.2 Additional Information Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

IATA/IMO/RID/ADR Not classified as hazardous for transport.

SECTION 15: REGULATORY INFORMATION

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

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation Not listed

REACH: ANNEX XIV list of substances subject to authorisation Not listed

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not listed

Community Rolling Action Plan (CoRAP) Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Not listed

Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer Not listed

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals Not listed

National regulations

Other Not known.

15.2 Chemical Safety Assessment A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Acronyms ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS : Chemical Abstracts Service
CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL : Derived No Effect Level
EC : European Community
EINECS : European Inventory of Existing Commercial Chemical Substances
IATA : International Air Transport Association
IBC : Intermediate Bulk Container
ICAO : International Civil Aviation Organization
IMDG : International Maritime Dangerous Goods
LTEL : Long term exposure limit
PBT : Persistent, Bioaccumulative and Toxic
PNEC : Predicted No Effect Concentration
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
RID : Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL : Short term exposure limit
STOT : Specific Target Organ Toxicity
UN : United Nations
vPvB : very Persistent and very Bioaccumulative

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