

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

1.1. Product identifier

Product name: 4-NITROANILINE

CAS number: 100-01-6

EINECS number: 202-810-1

Index number: 612-012-00-9

Synonyms: P-NITROANILINE

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

Use of substance / mixture: PC21: Laboratory chemicals. PROC15: Use as laboratory reagent

1.3. Details of the supplier of the safety data sheet

Company name: Elemental Microanalysis Ltd
1 Hameldown Road Okehampton
Okehampton
Devon
EX20 1UB
United Kingdom

Tel: 44(0)183754446

Fax: 44(0)183754544

Email: info@microanalysis.co.uk

1.4. Emergency telephone number

Emergency tel: +44 (0) 7990 767375
(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Acute Tox. 3: H301+H311+H331; STOT RE 2: H373; Aquatic Chronic 3: H412

Most important adverse effects: Toxic if swallowed, in contact with skin or if inhaled May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements:

Hazard statements: H301+H311+H331: Toxic if swallowed, in contact with skin or if inhaled
H373: May cause damage to organs through prolonged or repeated exposure.
H412: Harmful to aquatic life with long lasting effects.

Hazard pictograms: GHS06: Skull and crossbones
GHS08: Health hazard

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Signal words: Danger

Precautionary statements: * P260: Do not breathe dust/fumes/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER.
P302+P352: IF ON SKIN: Wash with plenty of water.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311: Call POISON CENTER/doctor.
P361+P364: Take off immediately all contaminated clothing and wash it before reuse.

2.3. Other hazards

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

Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: NITROANILINE (P)

CAS number: 100-01-6

EINECS number: 202-810-1

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. Not applicable.

Ingestion: Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. 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.

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Eye contact: There may be irritation and redness.

Ingestion: * There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Inhalation of fumes from the stomach may cause symptoms similar to direct inhalation. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: * There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing. Drowsiness or mental confusion may occur. There may be loss of consciousness. Convulsions may occur. Absorption through the lungs can occur causing symptoms similar to those of ingestion.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Toxic. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Alert the neighbourhood to the presence of fumes or gas.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

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6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Ensure there is sufficient ventilation of the area. Do not handle in a confined space.
Avoid direct contact with the substance. Wash hands after working with substance. Avoid the formation or spread of dust in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be used in handling. Particle filter class P2S (EN143).

Hand protection: Protective gloves. Nitrile gloves. Breakthrough time of the glove material > 8 hours.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Crystals

Colour: Yellow

Odour: Pungent

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: Slightly soluble

Viscosity: No data available.

Boiling point/range°C: 260

Melting point/range°C: 146-149

Flammability limits %: lower: No data available.

upper: No data available.

Flash point°C: 213

Part.coeff. n-octanol/water: 1.39 log Pow: 5

Autoflammability°C: 180

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Vapour pressure: 0.005hPa at 25 deg

Relative density: 1.44

pH: 7

VOC g/l: No data available.

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.

10.3. Possibility of hazardous reactions

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

Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

* Toxicity values:

Route	Species	Test	Value	Units
DERMAL	GPG	LD50	500	mg/kg
ORAL	RAT	LD50	750	mg/kg

Hazardous ingredients:

NITROANILINE (P)

IPR	RAT	LDLO	600	mg/kg
ORL	MUS	LD50	810	mg/kg
ORL	RAT	LD50	750	mg/kg

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Relevant hazards for product:

Hazard	Route	Basis
Acute toxicity (ac. tox. 3)	INH DRM ING	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

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: * There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Inhalation of fumes from the stomach may cause symptoms similar to direct inhalation. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: * There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing. Drowsiness or mental confusion may occur. There may be loss of consciousness. Convulsions may occur. Absorption through the lungs can occur causing symptoms similar to those of ingestion.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

* Ecotoxicity values:

Species	Test	Value	Units
Ciliate	72H IC50	10.14	mg/l
ALGAE	48H EC50	68	mg/l
ZEBRAFISH (Brachydanio rerio)	96H LC50	87.6	mg/l
Daphnia magna	48H EC50	24	mg/l

12.2. Persistence and degradability

Persistence and degradability: Biodegradable in part only.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

Persistence (P-):

Persistence result: not P-

Bioaccumulation (B-):

Bioconcentration factor (BCF): 4.4

Aquatic species tested: ZEBRAFISH (Brachydanio rerio).

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Bioaccumulation result: not B-

Toxicity (T-):

mg/l

NOEC for marine or freshwater organisms: <0.1

Toxicity result: T

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

12.6. Other adverse effects

Other adverse effects: Toxic to aquatic organisms. Harmful to soil organisms.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

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: UN1661

14.2. UN proper shipping name

Shipping name: NITROANILINES

14.3. Transport hazard class(es)

Transport class: 6.1

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: Not applicable.

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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 2015/830.

This safety data sheet is prepared in accordance with Commission Regulation (EC) No 1272/2008.

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

Phrases used in s.2 and s.3: H301+H311+H331: Toxic if swallowed, in contact with skin or if inhaled

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

H412: Harmful to aquatic life with long lasting effects.

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.