Vickers Laboratories Ltd - Safety Data Sheet 0472

(in accordance with regulation (EU) 2015/830 and regulation (EC) 1272/2008)

Revision: 2.1 Revision date: 16 April 2021
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Section 1. Identification

1.1 Product Identifier 0472

Product Name NITROBENZENE pure

CAS Number 98-95-3
REACH Registration No A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

Molecular Formula $C_6H_5NO_2 = 123.06$

1.2 Relevent identified uses of the substance or mixure & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd

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(Have this document to hand)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Acute toxicity, category 3 (oral)	H301: Toxic if swallowed.
Acute toxicity, category 3 (dermal)	H311: Toxic in contact with skin.
Acute toxicity, category 3 (inhalation)	H331: Toxic if inhaled.
Carcinogenicity, category 2	H351: Suspected of causing cancer.
Reproductive toxicity, category 1B	H360: May damage fertility or the unborn child.
Spec target organ tox - repeat, category 1	H372: Causes damage to organs through prolonged or repeated exposure.
Hazard to aquatic environment, category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms

Hazard Statements	Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. May damage fertility or the unborn child. Suspected of causing cancer. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.
Precautionary Statements	Avoid breathing dust / fume / gas / mist / vapours / spray. Avoid release to the environment. Wear protective gloves / protective clothing / eye protection / face protection. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Nitrobenzene	98-95-3	202-716-0		>99%	Acute Tox. 3 (O),Acute Tox. 3 (D),Acute Tox. 3 (I),Carc. 2,Repr. 1B,STOT RE 1,Aquatic Chronic 3

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.
Skin	Thoroughly wash off skin with soap and water. Remove contaminated clothing immediately avoiding contamination of unaffected areas. Transfer to hospital as soon as possible.
Inhalation	Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. OBTAIN MEDICAL ATTENTION URGENTLY.
Ingestion	Wash out the patients mouth thoroughly with water. If conscious give plenty of water to drink. Do not induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

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

No further relevant information available.

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

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Alcohol resistant foam, dry powder, or carbon dioxide. Use water spray to keep fire exposed containers cool.
Unsuitable Media	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards	Vapour-air mixtures are explosive.

5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Ensure no sources of ignition. Only re-enter area with full protective clothing and breathing apparatus. Do not allow other people to enter area. Do not allow general use of area until it is safe to do so.

6.2 Environmental precautions

Enviromental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

6.3 Methods and material for containment and cleaning up

Major Spillage	Contain and absorb on inert material. Transfer absorbent to container for removal. Wash area down with copious amounts of water.
Minor Spillage	Wash area down with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Keep containers closed when not in use. Keep container upright.

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits			
			Long Term (8hr TWA)		Short Term 15min period)	
Nitrobenzene	98-95-3	>99%	0.2 ppm	1.0 mg/m-3	0.6 ppm	3.0 mg/m-3

Exposure data source(s)	IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

Respiratory Protection	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.
Hand Protection	Use solvent resistant gloves.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Avoid contact with skin. The liquid can be absorbed through the skin on prolonged contact If skin contact or contamination of clothing is likely, protective clothing must be worn. IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
Special Hazards	No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Straw coloured liquid.
Odour	No data available.
pH	6.5 (1.9 g/L) @ 20 C
Boiling Point	210.8 °C
Melting Point	5.26 °C
Flash Point	88.0 °C (Closed cup)

Upper Flammable Limit	40%
Lower Flammable Limit	1.8%
Auto Ignition	480 °C
Explosive Properties	No data available.
Oxidising Properties	No data available.
Vapour Pressure	20 Pa @ 20 °C
Relative Density	1.200 @ 20 °C
Water Solubility	1.9g/L @ 20 °C

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1	Reactivity	No data available.
10.2	Chemical Stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	Hot surfaces, naked flames or other sources of ignition.
10.5	Incompatable Materials	Oxidising agents, strong bases,strong reducing agents and strong acids.
10.6	Hazardous Decomposition Products	Burning will produce toxic fumes of NOx, carbon monoxide and/or carbon dioxide.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Both the vapour and liquid may, cause conjunctival irritation and corneal damage.
Skin	Toxic in contact with skin. The liquid will be irritating to the skin. May be absorbed through the skin. A single prolonged exposure may result in the material being absorbed in harmful amounts. Absorption leads to the formation of methemoglobin which causes cyanosis.
LD50 Skin	2100 mg/Kg Rat
Ingestion	Toxic if swallowed.
LD50 Oral	349 mg/Kg Rat
Inhalation	Toxic if inhaled. May cause respiratory tract irritation.
LD50 Inhalation	556 ppm Rat
TCLo	Not available
Carcinogenicity	Must be considered to have carcinogenic properties.
Mutagenicity	No information is available.
Reproductive Effects	Suspected of damaging fertility or the unborn child.

Section 12. Ecological

12.1	Toxicity	Toxic to aquatic species and may cause long term adverse effects in the aquatic environment.
	LC50 Algal	51.6 mg/L Green algae (72 hours)
	LC50 Crustacea	Not available
	LC50 Fish	44 mg/L Fathead Minnow
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
12.5	Results of PBT & vPvB assessment	Assessment not required.
12.6	Other adverse effects	None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Dispose of via an authorised waste disposal contractor to an approved waste disposal site, observing all local and national regulations.
Contaminated Packaging	Use a licensed waste disposer.

Section 14. Transport Information

14.1	**UN Number**	1662
14.2	**Proper Shipping Name**	Nitrobenzene
14.3	**Transport classes**	
	UN classification	6.1
	Subsidiary hazard(s)	None
	Transport category	2
	ADR Hazard ID	
	Tunnel Restriction Code	B/E
14.4	**Packing Group**	II
14.5	**Environment hazards**	See section 12.
14.6	**Special precautions for user**	No special precautions required.
14.7	**Transport in bulk**	Not transported in bulk.

Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for subtance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification	Acute toxicity, category 3 (oral); Acute toxicity, category 3 (dermal); Acute toxicity, category 3 (inhalation); Carcinogenicity, category 2; Reproductive toxicity, category 1B; Spec target organ tox - repeat, category 1; Hazard to aquatic environment, category 3
Signal word	Danger
Hazard Pictograms	
Hazard Statements	H301, H311, H331, H360, H351, H372, H412 Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. May damage fertility or the unborn child. Suspected of causing cancer. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.
Precautionary Statements	P261, P273, P280, P301+P310 Avoid breathing dust / fume / gas / mist / vapours / spray. Avoid release to the environment. Wear protective gloves / protective clothing / eye protection / face protection. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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