

N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE

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

1.1 Product identifier

Product name: N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE
CAS Number: 101-87-1
EC Number: 202-984-9

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

Product use: Laboratory use
Uses advised against: No information available

1.3 Details of the supplier of the safety data sheet

Company name: East Harbour Group Ltd
20 Clough Road, Severalls Industrial Park
Colchester, Essex, CO4 9QS
United Kingdom

Telephone: +44 (0) 333 242 0100
Email: info@eastharbourgroup.com

1.4 Emergency telephone number

Emergency telephone: 0800 246 1274

Section 2: Hazardous identification

2.1 Classification of the substance or mixture

Regulation (EC) No 1272/2008

H319	Category 2	Serious eye damage/eye irritation
H317	Category 1	Skin sensitisation
H411	Category 2	Chronic aquatic toxicity

2.2 Label elements

Contains N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE



Signal word

Warning

Hazard statements

H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H411	Toxic to aquatic life with long lasting effects

N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE

Precautionary statements – EU (§28, 1272/2008)

P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P273	Avoid release to the environment
P280	Wear protective gloves and eye/face protection
P337 + P313	If eye irritation persists: Get medical advice/attention
P391	Collect spillage

2.3. Other hazards

No information available.

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII

Chemical name	EU- REACH (1907/2006)-Article 59(1) – Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU – REACH (1907/2006) – Endocrine Disruptor Assessment List of Substances
N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE	-	-

Section 3: Composition/information on ingredients

3.1 Substances

Chemical Name	N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE
CAS No.	101-87-1
Weight -%	100
REACH Registration number	-
EC No	202-984-9
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)
Specific concentration limit (SCL)	-
M-Factor	-
M-Factor (long-term)	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATE_{mix}) for classifying a mixture based on its components.

Chemical Name	N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE
Oral LD50 mg/kg	2000
Dermal LD50 mg/kg	No data available
Inhalation LC50 – 4hour – dust/mist – mg/L	No data available
Inhalation LC50 – 4hour – vapour – mg/L	No data available
Inhalation LC50 – 4hour – gas – ppm	No data available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE

Section 4: First aid measures

4.1 Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact

Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor.

Ingestion

Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.

Self-protection of the first aider

Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

4.2 Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation.

4.3 Indication of any immediate medical attention and special treatment needed

Note to doctors May cause sensitisation in susceptible persons. Treat symptomatically

Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire: Caution – Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media: Do not scatter spilled material with high pressure water streams

5.2 Special hazards arising from the substance or mixture

Product is or contains a sensitiser. May cause sensitisation by skin contact.

5.3 Advice for firefighters

Special protective equipment precautions for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other information

Refer to protective measures listed in Sections 7 and 8.

N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE

For emergency responders

Use personal protection recommended in Section 8.

6.2 Environmental precautions

See Section 12 for additional Ecological Information.

6.3 Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards: Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information

Section 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions

Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA. Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Exposure Limits

Chemical Name	France	Germany	Germany MAK	Greece	Hungary
N-cyclohexyl-N'-phenyl-p-phenylenediamine CAS No:101-87-1	-	Skin sensitiser	Skin sensitiser	-	-
Chemical Name	Portugal	Romania	Slovakia	Slovenia	Spain
N-cyclohexyl-N'-phenyl-p-phenylenediamine CAS No: 101-87-1	-	-	Sensitiser	-	-

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region-specific regulatory bodies

N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2 Exposure controls / Appropriate engineering controls

Personal protective equipment

Eye/face protection: Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Hand protection: The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear protective butyl rubber gloves. Wear suitable gloves.

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Solid	
Appearance	Solid	
Colour	Brown	
Odour	No information available	
Odour threshold	No information available	
Melting point/freezing point	112 - 114°C	
Boiling point / boiling range	No data available	
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	Chloroform, Methanol,	slightly soluble
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE

9.2 Other information

Molecular weight 266.42
Molecular formula C18 H22 N2

9.2.1 Information with regards to physical hazard classes

Not applicable

9.2.2 Other safety characteristics

No information available

Section 10: Stability and Reactivity

10.1 Reactivity

No information available

10.2 Chemical Stability

Stable under normal conditions

Explosion data

Sensitivity to mechanical impact

None

Sensitivity to static discharge

None

10.3 Possibility of hazardous reactions

None under normal processing

10.4 Conditions to avoid

None known based on information supplied

10.5 Incompatible materials

None known based on information supplied

10.6 Hazardous decomposition products

None known based on information supplied

Section 11: Toxicological Information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation

Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact

Specific test data for the substance or mixture is not available. Causes serious eye irritation. (Based on components). May cause redness, itching, and pain.

Skin contact

May cause sensitisation by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (Based on components). May cause irritation. Prolonged contact may cause redness and irritation.

Ingestion

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Itching. Rashes. Hives. May cause redness and tearing of the eyes.

Numerical measures of toxicity

Acute toxicity

Component Information

Chemical name N-cyclohexyl-N'-phenyl-p-phenylenediamine

Oral LD50 > 2 g/kg (Rat)

Dermal LD50 -

Inhalation LC50 -

Delayed and immediate effects as well as chronic effects from short and long-term exposure

N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE

Skin corrosion/irritation: May cause skin irritation.

Serious eye damage/eye irritation: Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitisation: May cause sensitisation by skin contact.

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

Reproductive toxicity: No information available.

STOT - single exposure: No information available.

STOT - repeated exposure: No information available.

Aspiration hazard: No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties: No information available.

11.2.2 Other information

Other adverse effects No information available

Section 12: Ecological Information

12.1. Toxicity

Ecotoxicity Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers.

N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE

Section 14: Transport Information

IATA

14.1 UN number or ID number	UN3077
14.2 UN proper shipping name	Environmentally hazardous substances, solid, n.o.s. (N-cyclohexyl-N'-phenyl-p-phenylenediamine)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3077, Environmentally hazardous substances, solid, n.o.s. (N-cyclohexyl-N'-phenyl-p-phenylenediamine), 9, III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	A97, A158, A179, A197, A215
ERG Code	9L

IMDG

14.1 UN number or ID number	UN3077
14.2 UN proper shipping name	Environmentally hazardous substances, solid, n.o.s. (N-cyclohexyl-N'-phenyl-p-phenylenediamine)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3077, Environmentally hazardous substances, solid, n.o.s. (N-cyclohexyl-N'-phenyl-p-phenylenediamine), 9, III, Marine pollutant
14.5 Marine pollutant	P
Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	274, 335, 966, 967, 969
EmS-No	F-A, S-F No information available
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN3077
14.2 UN proper shipping name	Environmentally hazardous substances, solid, n.o.s. (N-cyclohexyl-N'-phenyl-p-phenylenediamine)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3077, Environmentally hazardous substances, solid, n.o.s. (N-cyclohexyl-N'-phenyl-p-phenylenediamine), 9, III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	274, 335, 375, 601
Classification code	M7

ADR

14.1 UN number or ID number	UN3077
14.2 UN proper shipping name	Environmentally hazardous substances, (N-cyclohexyl-N'-phenyl-p-phenylenediamine)
14.3 Transport hazard class(es)	9
14.4 Packing group	III

N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE

Description	UN3077, Environmentally hazardous substances, solid, n.o.s. (N-cyclohexyl-N'-phenyl-p-phenylenediamine), 9, III, (-)
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	274, 335, 601, 375
Classification code	M7
Tunnel restriction code	(-)

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

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

National regulations

Germany

Water hazard class (WGK) obviously hazardous to water (WGK 2)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use: This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors

Not applicable

Persistent Organic Pollutants Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AICS	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

N-CYCLOHEXYL-N'-PHENYL-P-PHENYLENEDIAMINE

AICS - Australian Inventory of Chemical Substances

Section 16: Other Information

Full text of H-Statements referred to under section 3

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H411 - Toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied and should be used only as a guide.