

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Reference number: 03470

Issue date: 3/13/2024 Revision date: 3/13/2024 Supersedes version of: 5/31/2016 Version: 1.0

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

1.1. Product identifier

: Substance Product form

: 2,4-DINITROPHENYL HYDRAZINE FOR SYNTHESIS Trade name

EC-No. : 204-309-3 CAS-No. : 119-26-6 Product code : 03470 Formula : C6H6N4O4

Chemical structure NHNH₂

: 2,4-DNPH, 2,4-DNP Synonyms

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial

For professional use only Use of the substance/mixture : Laboratory chemicals Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.

107 Wode House Road, Jehangir Villa, Colaba

400005 Mumbai

INDIA

T +91 22 6663 6663, F +91 22 6663 6699

info@lobachemie.com, www.lobachemie.com

1.4. Emergency telephone number

: +91 22 6663 6663 (9:00am - 6:00 pm) Emergency number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable solids, Category 1 Acute toxicity (oral), Category 4 H302

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

Adverse physicochemical, human health and environmental effects

Flammable solid. Harmful if swallowed.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)





GHS02

GHS07

Signal word (CLP)

: Danger Hazard statements (CLP)

: H228 - Flammable solid. H302 - Harmful if swallowed.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.

P230 - Keep wetted with water.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%
2,4-DINITROPHENYL HYDRAZINE	CAS-No.: 119-26-6 EC-No.: 204-309-3	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact First-aid measures after eye contact

: Wash with plenty of water/.... Get medical advice/attention. Wash skin with plenty of water.

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion

: Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation

: Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure. Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

Symptoms/effects after skin contact

: None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.

Symptoms/effects after eye contact

None under normal conditions. Dust from this product may cause eye irritation.

Symptoms/effects after ingestion : Harmful if swallowed.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable solid.

Explosion hazard : May form flammable/explosive vapour-air mixture.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper

protective equipment, including respiratory protection.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. No open flames. No smoking. Use special care to avoid static

electric charges. Notify authorities if product enters sewers or public waters. Absorb spillage

to prevent material damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and

no smoking.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Use personal protective

equipment as required. For further information refer to section 8: "Exposure

controls/personal protection".

Emergency procedures : Ventilate area. Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Using a clean shovel, put the material in a dry container and cover without compressing it.

Methods for cleaning up : Mechanically recover the product. Soak up spills with inert solids, such as clay or

diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.

Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

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Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid

contact with skin and eyes. Do not breathe vapours. Keep away from sources of ignition - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking. Ground/bond container and receiving equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas

with mild soap and water before eating, drinking or smoking and when leaving work. Always

wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Use explosion-

proof electrical/ventilating/lighting equipment. Ground/bond container and receiving

equipment.

Storage conditions : Keep in fireproof place. Keep container tightly closed. Keep cool. Protect from sunlight.

Keep away from ignition sources.

Incompatible materials : Heat sources.

Packaging materials : Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses

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8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid Colour : Orange red. : Crystalline powder. Appearance Molecular mass : 198.14 g/mol Odour characteristic. Odour threshold : Not available 195 - 200 °C Melting point Freezing point Not applicable Boiling point Not available Flammability Flammable solid. Lower explosion limit Not applicable Upper explosion limit Not applicable : Not applicable Flash point : Not applicable Auto-ignition temperature Decomposition temperature : Not available рΗ : Not available pH solution : Not available Viscosity, kinematic : Not applicable

Solubility : Water: Very slightly soluble in water

Partition coefficient n-octanol/water (Log Kow) : Not available
Vapour pressure : 0.0000125 mm Hg
Vapour pressure at 50°C : Not available
Density : Not available
Relative density : Not available
Relative vapour density at 20°C : Not applicable
Particle size : Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable solid.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Open flame. Heat. Sparks. Avoid contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Harmful if swallowed. Acute toxicity (dermal) Not classified Acute toxicity (inhalation) : Not classified Skin corrosion/irritation : Not classified Serious eye damage/irritation : Not classified Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified Reproductive toxicity Not classified : Not classified STOT-single exposure STOT-repeated exposure : Not classified Aspiration hazard : Not classified

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Viscosity, kinematic Not applicable

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and : H

symptoms

: Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment.

Hazardous to the aquatic environment, short–term

(acute)

: Not classified

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Hazardous to the aquatic environment, long-term : Not classified

(chronic)

12.2. Persistence and degradability

2,4-DINITROPHENYL HYDRAZINE FOR SYNTHESIS (119-26-6)

Persistence and degradability Rapidly degradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance

with local, regional, national and/or international regulation. Disposal must be done

according to official regulations.

Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

 UN-No. (ADR)
 : UN 1325

 UN-No. (IMDG)
 : UN 1325

 UN-No. (IATA)
 : UN 1325

 UN-No. (ADN)
 : UN 1325

 UN-No. (RID)
 : UN 1325

14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE SOLID, ORGANIC, N.O.S.
Proper Shipping Name (IMDG) : FLAMMABLE SOLID, ORGANIC, N.O.S.
Proper Shipping Name (IATA) : Flammable solid, organic, n.o.s.

Proper Shipping Name (ADN) : FLAMMABLE SOLID, ORGANIC, N.O.S.
Proper Shipping Name (RID) : FLAMMABLE SOLID, ORGANIC, N.O.S.

Transport document description (ADR) : UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (2,4-DINITROPHENYL HYDRAZINE),

4.1, II, (E)

Transport document description (IMDG) : UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (2,4-DINITROPHENYL HYDRAZINE),

4.1, II

Transport document description (IATA) : UN 1325 Flammable solid, organic, n.o.s. (2,4-DINITROPHENYL HYDRAZINE), 4.1, II

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Transport document description (ADN)

: UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S., 4.1, II

Transport document description (RID)

: UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S., 4.1, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 4.1
Danger labels (ADR) : 4.1



IMDG

Transport hazard class(es) (IMDG) : 4.1 Danger labels (IMDG) : 4.1



IATA

Transport hazard class(es) (IATA) : 4.1 Danger labels (IATA) : 4.1



ADN

Transport hazard class(es) (ADN) : 4.1 Danger labels (ADN) : 4.1



RID

Transport hazard class(es) (RID) : 4.1
Danger labels (RID) : 4.1



14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available

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14.6. Special precautions for user

Overland transport

Classification code (ADR): F1Special provisions (ADR): 274Limited quantities (ADR): 1kgExcepted quantities (ADR): E2

Packing instructions (ADR) : P002, IBC08

Special packing provisions (ADR) : B4
Mixed packing provisions (ADR) : MP10
Portable tank and bulk container instructions (ADR) : T3
Portable tank and bulk container special provisions : TP33

(ADR)

Tank code (ADR) : SGAN
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Special provisions for carriage - Packages (ADR) : V11
Hazard identification number (Kemler No.) : 40

Orange plates

40 1325

Tunnel restriction code (ADR) : E EAC code : 1Z

Transport by sea

Special provisions (IMDG) : 274 Limited quantities (IMDG) : 1 kg Excepted quantities (IMDG) : E2 Packing instructions (IMDG) : P002 IBC packing instructions (IMDG) : IBC08 IBC special provisions (IMDG) : B21, B4 Tank instructions (IMDG) : T3 : TP33 Tank special provisions (IMDG) : F-A EmS-No. (Fire) EmS-No. (Spillage) : S-G : B Stowage category (IMDG) Segregation (IMDG) : SG72 MFAG-No : 133

Air transport

PCA Excepted quantities (IATA) : E2 PCA Limited quantities (IATA) : Y441 PCA limited quantity max net quantity (IATA) : 5kg PCA packing instructions (IATA) : 445 PCA max net quantity (IATA) : 15kg CAO packing instructions (IATA) : 448 CAO max net quantity (IATA) : 50kg Special provisions (IATA) : A3, A803

ERG code (IATA) : 3L

Inland waterway transport

Classification code (ADN) : F1
Special provisions (ADN) : 274
Limited quantities (ADN) : 1 kg
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP
Number of blue cones/lights (ADN) : 1

Rail transport

Classification code (RID) : F1
Special provisions (RID) : 274

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Limited quantities (RID) : 1kg
Excepted quantities (RID) : E2

Packing instructions (RID) : P002, IBC08

Special packing provisions (RID) : B4
Mixed packing provisions (RID) : MP10
Portable tank and bulk container instructions (RID) : T3
Portable tank and bulk container special provisions : TP33

(RID)

Tank codes for RID tanks (RID) : SGAN
Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W1
Colis express (express parcels) (RID) : CE10
Hazard identification number (RID) : 40

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
40.	2,4-DINITROPHENYL HYDRAZINE FOR SYNTHESIS

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Water hazard class (WGK) : Not classified according to Regulation Governing Systems for Handling Substances

Hazardous to Waters (AwSV).

Hazardous Incident Ordinance (12. BImSchV) : Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

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Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed : The substance is not listed

SZW-lijst van reprotoxische stoffen -

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen - Ontwikkeling : The substance is not listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and 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	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	

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Abbreviations and acronyms:	
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Flam. Sol. 1	Flammable solids, Category 1
H228	Flammable solid.
H302	Harmful if swallowed.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.