

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Reference number: 5036H

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Issue date: 5/24/2024 Revision date: 5/24/2024 Supersedes version of: 4/9/2015 Version: 1.0

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

1.1. Product identifier

Product form : Substance

Trade name : 3-NITROTOLUENE FOR SYNTHESIS

IUPAC name : 1-Methyl-3-nitrobenzene

EC-No. : 202-728-6 CAS-No. : 99-08-1 Product code : 5036H

Type of product : Organic compound

Formula : C7H7NO2

Chemical structure

CH₃

Synonyms : m-Nitrotoluene, meta-Nitrotoluene

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

1.2.1. Relevant identified uses

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

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 3 H301
Acute toxicity (dermal), Category 3 H311
Acute toxicity (inhal.), Category 3 H331
Specific target organ toxicity – Repeated exposure, Category 2 H373

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

Adverse physicochemical, human health and environmental effects

May cause damage to organs through prolonged or repeated exposure. Toxic in contact with skin. Toxic if inhaled. Toxic if swallowed.

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2.2. Label elements

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

Hazard pictograms (CLP)





GHS06

GHS08

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled.

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

Precautionary statements (CLP)

: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 - Wear protective clothing, eye protection, face protection, protective gloves. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P314 - Get medical advice/attention if you feel unwell.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

: Mono-constituent Substance type

Name	Product identifier	%
3-NITROTOLUENE	CAS-No.: 99-08-1 EC-No.: 202-728-6	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Call a physician immediately.

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. Call a doctor.

First-aid measures after skin contact : Immediately call a POISON CENTER/doctor. Take off immediately all contaminated clothing. Wash with plenty of water/.... Specific measures (see supplemental first aid instruction on this label). Wash contaminated clothing before reuse. Wash skin with plenty of water.

First-aid measures after eye contact

: Rinse eyes with water as a precaution.

First-aid measures after ingestion

: Rinse mouth. Obtain emergency medical attention. Immediately call a POISON CENTER/doctor. Specific treatment (see supplemental first aid instruction on this label). Call

a physician immediately.

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

Symptoms/effects

: There are potential chronic health effects to consider.

Symptoms/effects after inhalation

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

Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.

: None under normal conditions.

Symptoms/effects after eye contact Symptoms/effects after ingestion

Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

hazard.

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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 : Water spray. Dry powder. Foam. Carbon dioxide.

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

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.

Explosion hazard : No direct explosion hazard. 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 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 : Stop leak if safe to do so. 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. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact

with skin, eyes and clothing.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.

prevent migration and entry into sewers or streams. Stop leak without risks it possible

Methods for cleaning up : Take up liquid spill into absorbent material.

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.

Precautions for safe handling : Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on

clothing. Wear personal protective equipment. Use only outdoors or in a well-ventilated area.

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Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse. Always wash hands

after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed.

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

8.2.2.2. Skin protection

Skin and body protection:

Wear a mask

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

Wear appropriate mask. [In case of inadequate ventilation] wear respiratory protection.

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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 : Liquid Colour Yellow. Appearance Clear liquid. : 137.14 g/mol Molecular mass : mild. aromatic. Odour Odour threshold : 1.74 ppm Melting point : Not applicable Freezing point : 14 - 16 °C Boiling point : 230 - 232 °C Flammability : Non flammable. Lower explosion limit : 1.6 vol % Upper explosion limit : Not available Flash point : 106 °C Auto-ignition temperature : 440 °C Decomposition temperature : 270 °C : Not available Viscosity, kinematic : 2.014 mm²/s Viscosity, dynamic : 2.33 cP at 20 °C Solubility : Water: 0.05 % at 20 °C

Ethanol: Miscible
Ether: Miscible
: Not available

Partition coefficient n-octanol/water (Log Kow) : Not ava

Partition coefficient n-octanol/water (Log Pow) : 2.5 - Bioaccumulation is not expected

Vapour pressure : 0.1 mm Hg at 20 °C
Vapour pressure at 50 °C : Not available

Density : 1.157 g/cm³ at 25 °C

Relative density : Not available

Relative vapour density at 20 °C : 4.73 (Air = 1)

Particle characteristics : Not applicable

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

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

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) : Toxic if swallowed.

Acute toxicity (dermal) : Toxic in contact with skin.

Acute toxicity (inhalation) : Toxic if inhaled. : Not classified Skin corrosion/irritation Serious eye damage/irritation : Not classified Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified : Not classified Carcinogenicity Reproductive toxicity : Not classified STOT-single exposure Not classified

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

Additional information : There are potential chronic health effects to consider

Aspiration hazard : Not classified

3-NITROTOLUENE FOR SYNTHESIS (99-08-1)

Viscosity, kinematic 2.014 mm²/s

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

symptoms

: Toxic if swallowed, Toxic in contact with skin.

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

Hazardous to the aquatic environment, long-term

(chronic)

: Not classified

12.2. Persistence and degradability

3-NITROTOLUENE FOR SYNTHESIS (99-08-1)

Persistence and degradability Rapidly degradable

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12.3. Bioaccumulative potential

3-NITROTOLUENE FOR SYNTHESIS (99-08-1)

Partition coefficient n-octanol/water (Log Pow) 2.5 - Bioaccumulation is not expected

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. **Ecological information** : Hazardous waste due to toxicity.

SECTION 14: Transport information

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

14.1. UN number or ID number

UN-No. (ADR) : UN 1664 UN-No. (IMDG) : UN 1664 UN-No. (IATA) : UN 1664 UN-No. (ADN) : UN 1664 UN-No. (RID) : UN 1664

14.2. UN proper shipping name

Proper Shipping Name (ADR) : NITROTOLUENES, LIQUID Proper Shipping Name (IMDG) : NITROTOLUENES, LIQUID Proper Shipping Name (IATA) : Nitrotoluenes, liquid

: NITROTOLUENES, LIQUID Proper Shipping Name (ADN) Proper Shipping Name (RID) : NITROTOLUENES, LIQUID

Transport document description (ADR) : UN 1664 NITROTOLUENES, LIQUID, 6.1, II, (D/E) Transport document description (IMDG) : UN 1664 NITROTOLUENES, LIQUID, 6.1, II Transport document description (IATA) UN 1664 Nitrotoluenes, liquid, 6.1, II

Transport document description (ADN) UN 1664 NITROTOLUENES, LIQUID, 6.1, II UN 1664 NITROTOLUENES, LIQUID, 6.1, II Transport document description (RID)

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) : 6.1 Danger labels (ADR) : 6.1

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IMDG

Transport hazard class(es) (IMDG) : 6.1 Danger labels (IMDG) : 6.1



IATA

Transport hazard class(es) (IATA) : 6.1
Danger labels (IATA) : 6.1



ADN

Transport hazard class(es) (ADN) : 6.1 Danger labels (ADN) : 6.1



RID

Transport hazard class(es) (RID) : 6.1
Danger labels (RID) : 6.1





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

14.6. Special precautions for user

Overland transport

Classification code (ADR) : T1
Limited quantities (ADR) : 100ml
Excepted quantities (ADR) : E4
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T7

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Portable tank and bulk container special provisions : TF

(ADR)

Tank code (ADR) : L4BH
Tank special provisions (ADR) : TU15, TE19
Vehicle for tank carriage : AT

Transport category (ADR) : 2

Special provisions for carriage - Loading, unloading : CV13, CV28

and handling (ADR)

Special provisions for carriage - Operation (ADR) : S9, S19 Hazard identification number (Kemler No.) : 60

Orange plates :

60 1664

Tunnel restriction code (ADR) : D/E EAC code : 2X

Transport by sea

Limited quantities (IMDG) : 100 ml Excepted quantities (IMDG) E4 Packing instructions (IMDG) P001 IBC packing instructions (IMDG) IBC02 Tank instructions (IMDG) T7 Tank special provisions (IMDG) TP2 : F-A EmS-No. (Fire) EmS-No. (Spillage) : S-A Stowage category (IMDG) : A

Properties and observations (IMDG) : Yellow liquids. Melting points: ortho-NITROTOLUENE: -4°C, meta- NITROTOLUENE: 15°C.

Toxic if swallowed, by skin contact or by inhalation.

MFAG-No : 152

Air transport

PCA Excepted quantities (IATA) : E4 PCA Limited quantities (IATA) : Y641 PCA limited quantity max net quantity (IATA) : 1L PCA packing instructions (IATA) : 654 PCA max net quantity (IATA) : 5L CAO packing instructions (IATA) : 662 CAO max net quantity (IATA) : 60L ERG code (IATA) : 6L

Inland waterway transport

Classification code (ADN) : T1
Special provisions (ADN) : 802
Limited quantities (ADN) : 100 ml
Excepted quantities (ADN) : E4
Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EP, TOX, A

Ventilation (ADN) : VE02 Number of blue cones/lights (ADN) : 2

Rail transport

Classification code (RID) : T1
Limited quantities (RID) : 100ml
Excepted quantities (RID) : E4
Packing instructions (RID) : P001, IBC02
Mixed packing provisions (RID) : MP15
Portable tank and bulk container instructions (RID) : T7
Portable tank and bulk container special provisions : TP2

(RID)

Tank codes for RID tanks (RID) : L4BH Special provisions for RID tanks (RID) : TU15

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Transport category (RID) : 2

Special provisions for carriage - Loading, unloading : CW13, CW28, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE5
Hazard identification number (RID) : 60

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
3(b)	3-NITROTOLUENE 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)

Not listed on 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

France

Occupational diseases	
Code	Description
RG 13	Occupational poisoning by nitrates and chloronitro compounds of benzene hydrocarbons

Germany

Water hazard class (WGK)

: WGK 3, Highly hazardous to water (Classification according to AwSV; ID No. 643).

Chemicals Prohibition Ordinance (ChemVerbotsV)

This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the shipping route (according to § 10).

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

Netherlands

SZW-lijst van kankerverwekkende stoffen

SZW-lijst van mutagene stoffen

SZW-lijst van reprotoxische stoffen – Borstvoeding

SZW-lijst van reprotoxische stoffen -

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen - Ontwikkeling

The substance is not listedThe substance is not listed

: The substance is not listed: The substance is not listed

: The substance is not listed

Denmark

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

Pregnant/breastfeeding women working with the product must not be in direct contact with

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	

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Abbreviations and acronyms:	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
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. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

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.