

Safety data sheet

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BASF Safety data sheet
Date / Revised: 02.07.2025
Product: **Luphen® 3644**

Version: 1.0

(30631739/SDS_GEN_VN/EN)

Date of print: 21.10.2025

1. Substance/preparation and manufacturer/supplier identification

Product name:
Luphen® 3644

Use: Raw material, for industrial use only

Manufacturer/supplier:
BASF Vietnam Co. Ltd.
Level 23, Deutsches Haus, 33 Le Duan,
Sai Gon Ward, Ho Chi Minh City, Vietnam
Telephone: +84 28 3824 3833
Telefax number: +84 28 3824 3832
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18001703 (Vietnam)
Telefax number: +84 28 3824 3832
International emergency number:
Telephone: +49 180 2273-112

2. Hazard identification

Classification of the substance and mixture:
No need for classification according to GHS criteria for this product.

Label elements and precautionary statement:

The product does not require a hazard warning label in accordance with GHS criteria.

Other hazards which do not result in classification:
No specific dangers known, if the regulations/notes for storage and handling are considered. If the product adheres to skin, irritation may occur when it dries.

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3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

Aqueous dispersion of a polymer based on: polyurethane

Hazardous ingredients

mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

Content (W/W): > 0 PPM - < 15

PPM

CAS Number: 55965-84-9

Acute Tox.: Cat. 3 (oral)

Acute Tox.: Cat. 2 (Inhalation - mist)

Acute Tox.: Cat. 2 (dermal)

Skin Corr./Irrit.: Cat. 1C

Eye Dam./Irrit.: Cat. 1

Skin Sens.: Cat. 1A

Aquatic Acute: Cat. 1

Aquatic Chronic: Cat. 1

M-factor acute: 100

M-factor chronic: 100

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Content (W/W): ≤ 10 PPM

CAS Number: 2855-13-2

Acute Tox.: Cat. 4 (oral)

Skin Sens.: Cat. 1A

Acute Tox.: Cat. 5 (Inhalation - mist)

Skin Corr.: Cat. 1B

Eye Dam.: Cat. 1

Aquatic Acute: Cat. 3

4. First-Aid Measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting unless told to by a poison control center or doctor.

Note to physician:

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Symptoms: (Further) symptoms and / or effects are not known so far

Hazards: No hazards anticipated.

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, dry powder, foam, carbon dioxide

Specific hazards:

No particular hazards known.

Special protective equipment:

No data available.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered.

6. Accidental Release Measures

Personal precautions:

Use personal protective clothing. Avoid contact with skin and eyes.

Environmental precautions:

Do not release untreated into natural waters.

Methods for cleaning up or taking up:

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations.

For large amounts: Pump off product.

7. Handling and Storage

Handling

Handle in accordance with good industrial hygiene and safety practice. After long storage, slight quantities of carbon monoxide may be formed. To our best knowledge, the occupational exposure limit (OEL) is not exceeded during use. Entering of tanks must only be performed after intensive cleaning and when it is ensured that residual vapours have been removed. Consideration of national laws and international standards for confined space entry should be taken in to account. In case of doubt, the concentration of Carbon monoxide must be determined.

Storage

Further information on storage conditions: Store protected against freezing.

Protect from temperatures below: 5 °C

Protect from temperatures above: 60 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

No substance specific occupational exposure limits known.

Personal protective equipment

Hand protection:

Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc. Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures:

Hands and/or face should be washed before breaks and at the end of the shift. Avoid contact with skin and eyes.

9. Physical and Chemical Properties

Form:	liquid, dispersion
Colour:	white
Odour:	almost odourless
Odour threshold:	No data available.

pH value:	6.5 - 8.5	(DIN ISO 976)
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Information on: water

Melting point:	0 °C
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Information on: water

Boiling point:	100 °C
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Flash point:

not applicable

Flammability (solid/gas): not flammable

(derived from flash - and boiling point)

Lower explosion limit:

For liquids not relevant for classification and labelling.

Upper explosion limit:

For liquids not relevant for classification and labelling.

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Ignition temperature:	No data available.	
Thermal decomposition:	No decomposition if used correctly.	
Self ignition:	not self-igniting	
Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Information on: water		
Vapour pressure:	23.4 hPa (20 °C) Literature data.	

Density:	1.0 - 1.1 g/cm ³ (20 °C)	(ISO 2811-1)
Relative density:	No data available.	
Relative vapour density (air):	Water content greater than 10%.	
Solubility in water:	partly soluble (15 °C)	
Miscibility with water:	miscible	
Solubility (qualitative) :	No data available.	
Solubility (qualitative) :	No data available.	
Solubility (qualitative) :	No data available.	
Partitioning coefficient n-octanol/water (log Pow):	No data available.	
Viscosity, dynamic:	10 - 200 mPa.s (23 °C, 250 1/s)	(DIN EN ISO 3219)
Solids content:	49.0 - 51.0 %	(DIN EN ISO 3251)
Other Information:		
Range of particle size:	< 0,1 µm - 10 µm	

10. Stability and Reactivity

Conditions to avoid:
 Avoid extreme temperatures.

Thermal decomposition: No decomposition if used correctly.

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Substances to avoid:

No substances known that should be avoided.

Hazardous reactions:

No hazardous reactions when stored and handled according to instructions. After long storage, slight quantities of carbon monoxide may be formed.

No hazardous decomposition products if stored and handled as prescribed/indicated.

Chemical stability:

The product is stable if stored and handled as prescribed/indicated.

Reactivity:

No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:

LD50rat (oral): > 2,000 - 10,000 mg/kg

Assessment of acute toxicity

Virtually nontoxic after a single ingestion. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Symptoms

(Further) symptoms and / or effects are not known so far

Irritation

Assessment of irritating effects:

If the product adheres to skin, irritation may occur when it dries.

Not irritating to the eyes. Not irritating to the skin. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity:

The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:

Not expected to cause reproductive toxicity (based on composition).

Developmental toxicity

Assessment of teratogenicity:

The data available for an assessment of the effect of the substance on developmental toxicity are not sufficient for a proper evaluation.

Specific target organ toxicity (single exposure)

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

No adverse effects were observed after repeated inhalative exposure in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration hazard

not applicable

Other relevant toxicity information

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The statement was derived from products of similar composition.

12. Ecological Information

Ecotoxicity

Toxicity to fish:

LC50 (96 h) > 100 mg/l, *Brachydanio rerio* (OECD Guideline 203, static)

Aquatic invertebrates:

EC50 (48 h) > 100 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Aquatic plants:

EC50 (72 h) > 100 mg/l, *Scenedesmus subspicatus* (OECD Guideline 201)

Nominal concentration.

Microorganisms/Effect on activated sludge:

EC20 (0.5 h) > 100 mg/l, activated sludge, domestic (DIN EN ISO 8192-OECD 209-88/302/EEC,P. C)

The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Mobility

Assessment transport between environmental compartments:

No data available.

Persistence and degradability

Elimination information:

> 70 % DOC reduction (OECD 302B; ISO 9888; 88/302/EWG, Teil C) Easily eliminated from water.

Bioaccumulation potential

Bioaccumulation potential:

Based on its structural properties, the polymer is not biologically available. Accumulation in organisms is not to be expected.

Other adverse effects

Adsorbable organically-bound halogen (AOX):

No data available.

Additional information

Other ecotoxicological advice:

Do not release untreated into natural waters. At the present state of knowledge, no negative ecological effects are expected.

Ecological data are determined by analogy.

13. Disposal Considerations

Information on disposal regulations: Must comply with regulations on hazardous waste such as:

- Decree No. 08/2022/ND-CP of the Government: detailing a number of articles of the Law on Environmental Protection.

- Circular No. 02/2022/TT-BTNMT of the Ministry of Natural Resources and Environment: detailing a number of articles of the Law on Environmental Protection.

Must be disposed of or incinerated in accordance with local regulations.

Do not discharge into drains/surface waters/groundwater.

A waste code in accordance with the European waste catalog (EWC) cannot be specified, due to dependence on the usage.

Observe national and local legal requirements.

14. Transport Information

Domestic transport:

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Sea transport

IMDG

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
	Marine pollutant: no
Special precautions for user	None known

Air transport

IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
Proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

15. Regulatory Information

Other regulations

Legal information on safety, health and environment for chemicals:

Law on Chemicals No. 06/2007/QH12

Chemical Safety Sheets (SDS) are compiled in accordance with international regulations on chemical classification and labelling (GHS) as well as relevant applicable legal regulations:

- QCVN 05A:2020/BCT National Technical Regulation on safety in production, trading, use, preservation and transportation of hazardous chemicals.
- Amendment 1:2024 QCVN 05A:2020/BCT National technical regulation on safety in production, trading, use, preservation and transportation of hazardous chemicals.
- Decree No. 113/2017/ND-CP dated 09/10/2017 of the Government detailing and guiding the implementation of a number of articles of the Law on Chemicals;
- Circular No. 32/2017/TT-BCT dated 28/12/2017 of the Ministry of Industry and Trade specifying and guiding the implementation of a number of articles of the Law on Chemicals and Decree No. 113/2017/ND-CP dated 09/10/2017 of the Government detailing and guiding the implementation of a number of articles of the Law on Chemicals;
- Decree No. 82/2022/ND-CP dated October 18, 2022 of the Government amending and supplementing a number of articles of the Government's Decree No. 113/2017/ND-CP dated October 09, 2017 detailing and guiding the implementation of a number of articles of the Law on Chemicals
- Circular No. 17/2022/TT-BCT dated October 27, 2022 of the Ministry of Industry and Trade amending and supplementing a number of articles of Circular No. 32/2017/TT-BCT dated December 28, 2017 of the Minister of Industry and Trade specifying and guiding the implementation of a number of articles of the Law on Chemicals and the Government's Decree No. 113/2017/ND-CP dated October 09, 2017 detailing and guiding the exam a number of articles of the Law on Chemicals
- Decree No. 161/2024 ND-CP dated December 18, 2024 of the Government regulating the list of dangerous goods, transportation of dangerous goods and the order and procedures for issuance of licenses and certificates of completion of training programs for drivers or escorts transporting dangerous goods on roads;
- Decree 34/2024/ND-CP dated 31/03/2024 regulating the list of dangerous goods, transporting dangerous goods by road motor vehicles and inland waterway vehicles
- Circular No. 37/2020/TT-BCT dated 30/11/2020 of the Ministry of Industry and Trade stipulating the list of dangerous goods that must be packed in the process of transporting and transporting dangerous goods by road, railway and inland waterway motor vehicles.
- Decree No. 71/2019/ND-CP dated August 30, 2019 of the Government stipulating the sanctioning of administrative violations in the field of chemicals and industrial explosives.

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16. Other Information

Any other intended applications should be discussed with the manufacturer.

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