

# Safety data sheet

Page: 1/14

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

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

### 1.1. Product identifier

**Luphen® 3644**

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

Relevant identified uses: Raw material, for industrial use only

### 1.3. Details of the supplier of the safety data sheet

Company:

BASF SE  
67056 Ludwigshafen  
GERMANY

Contact address:

BASF plc  
4th and 5th Floors, 2 Stockport Exchange  
Railway Road, Stockport, SK1 3GG  
UNITED KINGDOM

Telephone: +44 161 475 3000

E-mail address: product-safety-uk-and-ireland@basf.com

### 1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

## SECTION 2: Hazards Identification

### 2.1. Classification of the substance or mixture

For the classification of the mixture the following methods have been applied: extrapolation on the concentration levels of the hazardous substances, on basis of test results and after evaluation of experts. The methodologies used are mentioned at the respective test results.

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

---

According to Regulation (EC) No 1272/2008 [CLP]

No need for classification according to GHS criteria for this product.

## 2.2. Label elements

Globally Harmonized System, EU (GHS)

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

According to Regulation (EC) No 1272/2008 [CLP]

Labeling of special preparations (GHS):

EUH208: May produce an allergic reaction. Contains: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

## 2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

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.

---

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Chemical nature

Aqueous dispersion of a polymer based on: polyurethane

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

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

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

---

Content (W/W): < 15 PPM  
CAS Number: 55965-84-9  
REACH registration number: 01-2120764691-48  
INDEX-Number: 613-167-00-5

Acute Tox. 3 (oral)  
Acute Tox. 2 (Inhalation - mist)  
Acute Tox. 2 (dermal)  
Skin Corr./Irrit. 1C  
Eye Dam./Irrit. 1  
Skin Sens. 1A  
Aquatic Acute 1  
Aquatic Chronic 1  
M-factor acute: 100  
M-factor chronic: 100  
H301, H317, H314, H310 + H330, H400, H410  
EUH071

Specific concentration limit:Skin Corr./Irrit. 1C:  $\geq 0.6$  %Skin Sens. 1A:  $\geq 0.0015$  %Eye Dam./Irrit. 1:  $\geq 0.6$  %Skin Corr./Irrit. 2:  $0.06 - < 0.6$  %Eye Dam./Irrit. 2:  $0.06 - < 0.6$  %

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

---

## SECTION 4: First-Aid Measures

### 4.1. Description of first aid measures

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.

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

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

Hazards: No hazards anticipated.

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

---

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

Treatment: Symptomatic treatment (decontamination, vital functions).

---

**SECTION 5: Fire-Fighting Measures****5.1. Extinguishing media**

Suitable extinguishing media:

water spray, dry powder, foam, carbon dioxide

**5.2. Special hazards arising from the substance or mixture**

Advice: No particular hazards known.

**5.3. Advice for fire-fighters**

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.

---

**SECTION 6: Accidental Release Measures****6.1. Personal precautions, protective equipment and emergency procedures**

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

**6.2. Environmental precautions**

Do not release untreated into natural waters.

**6.3. Methods and material for containment and cleaning 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.

**6.4. Reference to other sections**

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

---

**SECTION 7: Handling and Storage****7.1. Precautions for safe 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

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

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.

## 7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Store protected against freezing.

Protect from temperatures below: 5 °C

Protect from temperatures above: 60 °C

## 7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

---

# SECTION 8: Exposure Controls/Personal Protection

## 8.1. Control parameters

Components with occupational exposure limits

none

## 8.2. Exposure controls

Personal protective equipment

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): 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.

---

# SECTION 9: Physical and Chemical Properties

## 9.1. Information on basic physical and chemical properties

Form: liquid, dispersion

Colour: white

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

Odour:	almost odourless	
Odour threshold:		
pH value:	not determined	
<i>Information on: Water</i>	6.5 - 8.5	(DIN ISO 976)
<i>Melting point:</i>	0 °C	
-----		
<i>Information on: Water</i>		
<i>Boiling point:</i>	100 °C	
-----		
Flash point:		
	not applicable	
Evaporation rate:		
	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability:	not flammable	
Lower explosion limit:		
	For liquids not relevant for classification and labelling.	
Upper explosion limit:		
	For liquids not relevant for classification and labelling.	
Ignition temperature:		
	not applicable	
<i>Information on: Water</i>		
<i>Vapour pressure:</i>	23.4 hPa (20 °C) <i>Literature data.</i>	
-----		
Density:	1.0 - 1.1 g/cm <sup>3</sup> (20 °C)	(ISO 2811-1)
Relative density:		
	No data available.	
Relative vapour density (air):		
	not applicable	
Solubility in water:	partly soluble (15 °C)	
Partitioning coefficient n-octanol/water (log K <sub>ow</sub> ):		
	not applicable	
Self ignition:	not self-igniting	
Thermal decomposition:	No decomposition if used correctly.	
Viscosity, dynamic:	10 - 200 mPa.s (23 °C, 250 1/s)	(DIN EN ISO 3219)
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	

**9.2. Other information**

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

---

Self heating ability: It is not a substance capable of spontaneous heating.

Miscibility with water:

miscible

Solids content: 49.0 - 51.0 %

(DIN EN ISO 3251)

Other Information:

Range of particle size: < 0,1 µm - 10 µm

---

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

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

### 10.4. Conditions to avoid

Avoid extreme temperatures.

### 10.5. Incompatible materials

Substances to avoid:

No substances known that should be avoided.

### 10.6. Hazardous decomposition products

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

---

## SECTION 11: Toxicological Information

### 11.1. Information on toxicological effects

#### Acute toxicity

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.

Experimental/calculated data:

LD50 rat (oral): > 2,000 - 10,000 mg/kg

#### Irritation

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

#### 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)

##### Assessment of STOT single:

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)



---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

---

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.

---

## SECTION 12: Ecological Information

### 12.1. Toxicity

Toxicity to fish:

LC50 (96 h) &gt; 100 mg/l, Brachydanio rerio (OECD Guideline 203, static)

Aquatic invertebrates:

EC50 (48 h) &gt; 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants:

EC50 (72 h) &gt; 100 mg/l, Scenedesmus subspicatus (OECD Guideline 201)

Nominal concentration.

Microorganisms/Effect on activated sludge:

EC20 (0.5 h) &gt; 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.

### 12.2. Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O):

The product can be virtually eliminated from water by abiotic processes e.g. adsorption onto activated sludge.

Elimination information:

&gt; 70 % DOC reduction (OECD 302B; ISO 9888; 88/302/EEC,part C) Easily eliminated from water.

### 12.3. Bioaccumulative potential

Bioaccumulation potential:

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

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

#### **12.4. Mobility in soil**

Assessment transport between environmental compartments:

Volatility: No data available.

#### **12.5. Results of PBT and vPvB assessment**

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

#### **12.6. Other adverse effects**

No data available.

#### **12.7. Additional information**

Adsorbable organically-bound halogen (AOX):

No data available.

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.

---

### **SECTION 13: Disposal Considerations**

#### **13.1. Waste treatment methods**

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

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.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

---

### **SECTION 14: Transport Information**

#### **Land transport**

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

---

**ADR**

	Not classified as a dangerous good under transport regulations
UN 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

**RID**

	Not classified as a dangerous good under transport regulations
UN 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

**Inland waterway transport****ADN**

	Not classified as a dangerous good under transport regulations
UN 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

**Transport in inland waterway vessel**

Not evaluated

**Sea transport****IMDG**

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

---

Special precautions for user	None known
------------------------------	------------

### **Air transport**

IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN 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

#### **14.1. UN number**

See corresponding entries for "UN number" for the respective regulations in the tables above.

#### **14.2. UN proper shipping name**

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

#### **14.3. Transport hazard class(es)**

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

#### **14.4. Packing group**

See corresponding entries for "Packing group" for the respective regulations in the tables above.

#### **14.5. Environmental hazards**

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

#### **14.6. Special precautions for user**

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

#### **14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

---

## SECTION 15: Regulatory Information

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

#### Prohibitions, Restrictions and Authorizations

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):  
Listed in above regulation: no

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

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

### 15.2. Chemical Safety Assessment

Chemical Safety Assessment not required

---

## SECTION 16: Other Information

Any other intended applications should be discussed with the manufacturer.

#### Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Sens.	Skin sensitization
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
H301	Toxic if swallowed.
H317	May cause an allergic skin reaction.
H314	Causes severe skin burns and eye damage.
H310 + H330	Fatal in contact with skin or if inhaled
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

#### Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.03.2021

Version: 1.0

Date previous version: not applicable

Previous version: none

Product: **Luphen® 3644**

(ID no. 30631739/SDS\_GEN\_GB/EN)

Date of print 13.10.2025

Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

---

Vertical lines in the left hand margin indicate an amendment from the previous version.