

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.05.2025

Version number 1.0

Revision: 09.05.2025

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

- **1.1 Product identifier**
- **Trade name:** 1-Chloro-2,4-dinitrobenzene 25G
- **Article number:** 044-03422
- **CAS Number:**  
97-00-7
- **EC number:**  
202-551-4
- **Index number:**  
610-003-00-4
- **Registration number**  
Registration numbers of the individual components: see section 3.2, if applicable.
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation:** Laboratory chemicals
- **Uses advised against**  
Only for professional use.  
Do not use for private purposes (household).
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
FUJIFILM Wako Chemicals Europe GmbH  
Fuggerstr. 12  
41468 Neuss  
Deutschland  
Tel: +49 (0) 2131-311-0
- **Further information obtainable from:** msds\_eu@fujifilm.com
- **1.4 Emergency telephone number:** +49 (0) 2131-311-0 (8h-16h)

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 3	H301 Toxic if swallowed.
Acute Tox. 3	H311 Toxic in contact with skin.
Acute Tox. 3	H331 Toxic if inhaled.
STOT RE 2	H373 May cause damage to organs through prolonged or repeated exposure.
Aquatic Acute 1	H400 Very toxic to aquatic life.
Aquatic Chronic 1	H410 Very toxic to aquatic life with long lasting effects.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the CLP regulation.

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Trade name: 1-Chloro-2,4-dinitrobenzene 25G

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#### · Hazard pictograms



GHS06 GHS08 GHS09

#### · Signal word Danger

#### · Hazard-determining components of labelling:

1-chloro-2,4-dinitrobenzene

#### · Hazard statements

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

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

H410 Very toxic to aquatic life with long lasting effects.

#### · Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

#### · 2.3 Other hazards

#### · Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

#### · 3.1 Substances

##### · CAS No. Description

97-00-7 1-chloro-2,4-dinitrobenzene

##### · Identification number(s)

· EC number: 202-551-4

· Index number: 610-003-00-4

· SVHC Does not contain a SVHC according to REACH, Article 57 &gt;0,1%

### SECTION 4: First aid measures

#### · 4.1 Description of first aid measures

##### · General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

##### · After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

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- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.
- **Additional information**  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
Remove persons from danger area.  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store only in the original receptacle.  
Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**  
Protect from frost.  
Keep container tightly sealed.  
Store in a cool place.
- **Storage class:** 6.1 A
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes and skin.  
Do not eat, drink, smoke or sniff while working.  
Storing food in the working area is prohibited.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Hand protection**



Protective gloves

The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374.

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Eye/face protection**



Safety glasses

The protective safety glasses to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN166.

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· **Body protection:** Protective work clothing

### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

· <b>Physical state</b>	Solid
· <b>Colour:</b>	White - pale reddish yellow
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	49-53 °C
· <b>Boiling point or initial boiling point and boiling range</b>	315 °C (97-00-7 1-chloro-2,4-dinitrobenzene)
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	1.9 Vol % (97-00-7 1-chloro-2,4-dinitrobenzene)
· <b>Upper:</b>	22 Vol % (97-00-7 1-chloro-2,4-dinitrobenzene)
· <b>Flash point:</b>	194 °C (97-00-7 1-chloro-2,4-dinitrobenzene)
· <b>Auto-ignition temperature:</b>	432 °C (97-00-7 1-chloro-2,4-dinitrobenzene)
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH</b>	Not applicable.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not applicable.
· <b>Dynamic:</b>	Not applicable.
· <b>Solubility</b>	
· <b>water:</b>	Insoluble.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure:</b>	Not applicable.
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.7 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Bulk density:</b>	760 kg/m <sup>3</sup>
· <b>Vapour density</b>	Not applicable.
· <b>Particle characteristics</b>	See section 3.

#### · 9.2 Other information

· <b>Appearance:</b>	
· <b>Form:</b>	Crystalline powder
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Not determined.
· <b>Solids content:</b>	100.0 %
· <b>Molecular weight</b>	202.55 g/mol
· <b>Evaporation rate</b>	Not applicable.

#### · Information with regard to physical hazard classes

· <b>Explosives</b>	Not applicable
· <b>Flammable gases</b>	Not applicable

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· <b>Aerosols</b>	Not applicable
· <b>Oxidising gases</b>	Not applicable
· <b>Gases under pressure</b>	Not applicable
· <b>Flammable liquids</b>	Not applicable
· <b>Flammable solids</b>	Not applicable
· <b>Self-reactive substances and mixtures</b>	Not applicable
· <b>Pyrophoric liquids</b>	Not applicable
· <b>Pyrophoric solids</b>	Not applicable
· <b>Self-heating substances and mixtures</b>	Not applicable
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Not applicable
· <b>Oxidising liquids</b>	Not applicable
· <b>Oxidising solids</b>	Not applicable
· <b>Organic peroxides</b>	Not applicable
· <b>Corrosive to metals</b>	Not applicable
· <b>Desensitised explosives</b>	Not applicable

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid**  
See "Fire Fighting measures".  
Protect from heat and direct sunlight.
- **10.5 Incompatible materials:** Strong oxidizing agents.
- **10.6 Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Nitrogen oxides (NO<sub>x</sub>)  
Halides

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Toxic if swallowed, in contact with skin or if inhaled.

#### · LD/LC50 values relevant for classification:

#### 97-00-7 1-chloro-2,4-dinitrobenzene

Oral	LD50	780 mg/kg (rat)
Dermal	LD50	130 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.

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- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

· <b>Endocrine disrupting properties</b>
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Substance is not listed.
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### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms  
Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Contact waste processors for recycling information.

· <b>European waste catalogue</b>	
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HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP6	Acute Toxicity
HP14	Ecotoxic

- **Uncleaned packaging:**
- **Recommendation:**  
Disposal must be made according to official regulations.

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Packagings that may not be cleansed are to be disposed of in the same manner as the product.

**SECTION 14: Transport information**

<ul style="list-style-type: none"> <li>· 14.1 UN number or ID number</li> <li>· ADR, IMDG, IATA</li> </ul>	<p>UN3441</p>
<ul style="list-style-type: none"> <li>· 14.2 UN proper shipping name</li> <li>· ADR</li> <li>· IMDG</li> <li>· IATA</li> </ul>	<p>3441 CHLORODINITROBENZENES, SOLID, ENVIRONMENTALLY HAZARDOUS            CHLORODINITROBENZENES, SOLID, MARINE POLLUTANT            CHLORODINITROBENZENES, SOLID</p>
<ul style="list-style-type: none"> <li>· 14.3 Transport hazard class(es)</li> <li>· ADR, IMDG</li> </ul>	<p>6.1 Toxic substances.</p>
<div style="display: flex; align-items: center;"> </div> <ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	<p>6.1 6.1</p>
<ul style="list-style-type: none"> <li>· IATA</li> </ul>	<p>6.1 Toxic substances.</p>
<div style="display: flex; align-items: center;"> </div> <ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	<p>6.1 6.1</p>
<ul style="list-style-type: none"> <li>· 14.4 Packing group</li> <li>· ADR, IMDG, IATA</li> </ul>	<p>II</p>
<ul style="list-style-type: none"> <li>· 14.5 Environmental hazards:</li> <li>· Marine pollutant:</li> <li>· Special marking (ADR):</li> </ul>	<p>Symbol (fish and tree)            Symbol (fish and tree)</p>
<ul style="list-style-type: none"> <li>· 14.6 Special precautions for user</li> <li>· Hazard identification number (Kemler code):</li> <li>· EMS Number:</li> <li>· Stowage Category</li> <li>· Segregation Code</li> </ul>	<p>Warning: Toxic substances.            60            F-A,S-A            A            SG15 Stow "separated from" class 3</p>
<ul style="list-style-type: none"> <li>· 14.7 Maritime transport in bulk according to IMO instruments</li> </ul>	<p>Not applicable.</p>

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#### · Transport/Additional information:

##### · ADR

- |                            |  |
|----------------------------|--|
| · Limited quantities (LQ)  | 500 g  |
| · Excepted quantities (EQ) | Code: E4<br>Maximum net quantity per inner packaging: 1 g<br>Maximum net quantity per outer packaging: 500 g |
| · Transport category       | 2  |
| · Tunnel restriction code  | D/E  |

##### · IMDG

- |                            |  |
|----------------------------|--|
| · Limited quantities (LQ)  | 500 g  |
| · Excepted quantities (EQ) | Code: E4<br>Maximum net quantity per inner packaging: 1 g<br>Maximum net quantity per outer packaging: 500 g |

- |                          |   |
|--------------------------|---|
| · UN "Model Regulation": | UN 3441 CHLORODINITROBENZENES, SOLID,<br>6.1, II, ENVIRONMENTALLY HAZARDOUS |
|--------------------------|---|

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Directive 2012/18/EU
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**  
H2 ACUTE TOXIC  
E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

Substance is not listed.

- **REGULATION (EU) 2019/1148**

- **Regulation (EC) No 273/2004 on drug precursors**

Substance is not listed.

- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

Substance is not listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

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**Trade name: 1-Chloro-2,4-dinitrobenzene 25G**

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**· Classification according to Regulation (EC) No 1272/2008**

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

**· Creation Date** 09.05.2025**· Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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

- **1.1 Product identifier**
- **Trade name:** 1-Chloro-2,4-dinitrobenzene 400G
- **Article number:** 046-03421
- **CAS Number:**  
97-00-7
- **EC number:**  
202-551-4
- **Index number:**  
610-003-00-4
- **Registration number**  
Registration numbers of the individual components: see section 3.2, if applicable.
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation:** Laboratory chemicals
- **Uses advised against**  
Only for professional use.  
Do not use for private purposes (household).
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
FUJIFILM Wako Chemicals Europe GmbH  
Fuggerstr. 12  
41468 Neuss  
Deutschland  
Tel: +49 (0) 2131-311-0
- **Further information obtainable from:** msds\_eu@fujifilm.com
- **1.4 Emergency telephone number:** +49 (0) 2131-311-0 (8h-16h)

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 3	H301 Toxic if swallowed.
Acute Tox. 3	H311 Toxic in contact with skin.
Acute Tox. 3	H331 Toxic if inhaled.
STOT RE 2	H373 May cause damage to organs through prolonged or repeated exposure.
Aquatic Acute 1	H400 Very toxic to aquatic life.
Aquatic Chronic 1	H410 Very toxic to aquatic life with long lasting effects.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the CLP regulation.

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Trade name: 1-Chloro-2,4-dinitrobenzene 400G

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#### · Hazard pictograms



GHS06 GHS08 GHS09

#### · Signal word Danger

#### · Hazard-determining components of labelling:

1-chloro-2,4-dinitrobenzene

#### · Hazard statements

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

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

H410 Very toxic to aquatic life with long lasting effects.

#### · Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

#### · 2.3 Other hazards

#### · Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

#### · 3.1 Substances

##### · CAS No. Description

97-00-7 1-chloro-2,4-dinitrobenzene

##### · Identification number(s)

· EC number: 202-551-4

· Index number: 610-003-00-4

· SVHC Does not contain a SVHC according to REACH, Article 57 &gt;0,1%

## SECTION 4: First aid measures

#### · 4.1 Description of first aid measures

##### · General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

##### · After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

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**Trade name: 1-Chloro-2,4-dinitrobenzene 400G**

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- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.
- **Additional information**  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
Remove persons from danger area.  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
  - Store only in the original receptacle.
  - Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
  - Protect from frost.
  - Keep container tightly sealed.
  - Store in a cool place.
- **Storage class:** 6.1 A
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
  - Immediately remove all soiled and contaminated clothing
  - Wash hands before breaks and at the end of work.
  - Store protective clothing separately.
  - Avoid contact with the eyes and skin.
  - Do not eat, drink, smoke or sniff while working.
  - Storing food in the working area is prohibited.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Hand protection**



Protective gloves

The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374.

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Eye/face protection**



Safety glasses

The protective safety glasses to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN166.

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· **Body protection:** Protective work clothing

### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

· <b>Physical state</b>	Solid
· <b>Colour:</b>	White - pale reddish yellow
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	49-53 °C
· <b>Boiling point or initial boiling point and boiling range</b>	315 °C (97-00-7 1-chloro-2,4-dinitrobenzene)
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	1.9 Vol % (97-00-7 1-chloro-2,4-dinitrobenzene)
· <b>Upper:</b>	22 Vol % (97-00-7 1-chloro-2,4-dinitrobenzene)
· <b>Flash point:</b>	194 °C (97-00-7 1-chloro-2,4-dinitrobenzene)
· <b>Auto-ignition temperature:</b>	432 °C (97-00-7 1-chloro-2,4-dinitrobenzene)
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH</b>	Not applicable.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not applicable.
· <b>Dynamic:</b>	Not applicable.
· <b>Solubility</b>	
· <b>water:</b>	Insoluble.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure:</b>	Not applicable.
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.7 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Bulk density:</b>	760 kg/m <sup>3</sup>
· <b>Vapour density</b>	Not applicable.
· <b>Particle characteristics</b>	See section 3.

#### · 9.2 Other information

· <b>Appearance:</b>	
· <b>Form:</b>	Crystalline powder
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Not determined.
· <b>Solids content:</b>	100.0 %
· <b>Molecular weight</b>	202.55 g/mol
· <b>Evaporation rate</b>	Not applicable.

#### · Information with regard to physical hazard classes

· <b>Explosives</b>	Not applicable
· <b>Flammable gases</b>	Not applicable

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· Aerosols	Not applicable
· Oxidising gases	Not applicable
· Gases under pressure	Not applicable
· Flammable liquids	Not applicable
· Flammable solids	Not applicable
· Self-reactive substances and mixtures	Not applicable
· Pyrophoric liquids	Not applicable
· Pyrophoric solids	Not applicable
· Self-heating substances and mixtures	Not applicable
· Substances and mixtures, which emit flammable gases in contact with water	Not applicable
· Oxidising liquids	Not applicable
· Oxidising solids	Not applicable
· Organic peroxides	Not applicable
· Corrosive to metals	Not applicable
· Desensitised explosives	Not applicable

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid**  
See "Fire Fighting measures".  
Protect from heat and direct sunlight.
- **10.5 Incompatible materials:** Strong oxidizing agents.
- **10.6 Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Nitrogen oxides (NO<sub>x</sub>)  
Halides

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Toxic if swallowed, in contact with skin or if inhaled.

#### · LD/LC50 values relevant for classification:

#### 97-00-7 1-chloro-2,4-dinitrobenzene

Oral	LD50	780 mg/kg (rat)
Dermal	LD50	130 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.

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- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

· <b>Endocrine disrupting properties</b>
Substance is not listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms  
Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Contact waste processors for recycling information.

· <b>European waste catalogue</b>	
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP6	Acute Toxicity
HP14	Ecotoxic

- **Uncleaned packaging:**

- **Recommendation:**

Disposal must be made according to official regulations.

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Packagings that may not be cleansed are to be disposed of in the same manner as the product.

**SECTION 14: Transport information**

<ul style="list-style-type: none"> <li>· 14.1 UN number or ID number</li> <li>· ADR, IMDG, IATA</li> </ul>	<p>UN3441</p>
<ul style="list-style-type: none"> <li>· 14.2 UN proper shipping name</li> <li>· ADR</li> <li>· IMDG</li> <li>· IATA</li> </ul>	<p>3441 CHLORODINITROBENZENES, SOLID, ENVIRONMENTALLY HAZARDOUS</p> <p>CHLORODINITROBENZENES, SOLID, MARINE POLLUTANT</p> <p>CHLORODINITROBENZENES, SOLID</p>
<ul style="list-style-type: none"> <li>· 14.3 Transport hazard class(es)</li> <li>· ADR, IMDG</li> </ul>	<p>6.1 Toxic substances.</p> <p>6.1</p>
<div style="text-align: center;"> </div> <ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	<p>6.1 Toxic substances.</p> <p>6.1</p>
<ul style="list-style-type: none"> <li>· IATA</li> </ul>	<div style="text-align: center;"> </div> <ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	<p>6.1 Toxic substances.</p> <p>6.1</p>
<ul style="list-style-type: none"> <li>· 14.4 Packing group</li> <li>· ADR, IMDG, IATA</li> </ul>	<p>II</p>
<ul style="list-style-type: none"> <li>· 14.5 Environmental hazards:</li> <li>· Marine pollutant:</li> <li>· Special marking (ADR):</li> </ul>	<p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<ul style="list-style-type: none"> <li>· 14.6 Special precautions for user</li> <li>· Hazard identification number (Kemler code):</li> <li>· EMS Number:</li> <li>· Stowage Category</li> <li>· Segregation Code</li> </ul>	<p>Warning: Toxic substances.</p> <p>60</p> <p>F-A,S-A</p> <p>A</p> <p>SG15 Stow "separated from" class 3</p>
<ul style="list-style-type: none"> <li>· 14.7 Maritime transport in bulk according to IMO instruments</li> </ul>	<p>Not applicable.</p>

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· **Transport/Additional information:**

· **ADR**

- **Limited quantities (LQ)** 500 g
- **Excepted quantities (EQ)** Code: E4  
Maximum net quantity per inner packaging: 1 g  
Maximum net quantity per outer packaging: 500 g
- **Transport category** 2
- **Tunnel restriction code** D/E

· **IMDG**

- **Limited quantities (LQ)** 500 g
- **Excepted quantities (EQ)** Code: E4  
Maximum net quantity per inner packaging: 1 g  
Maximum net quantity per outer packaging: 500 g

- **UN "Model Regulation":** UN 3441 CHLORODINITROBENZENES, SOLID, 6.1, II, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**  
H2 ACUTE TOXIC  
E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

Substance is not listed.

- **REGULATION (EU) 2019/1148**

- **Regulation (EC) No 273/2004 on drug precursors**

Substance is not listed.

- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

Substance is not listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

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**· Classification according to Regulation (EC) No 1272/2008**

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

**· Creation Date** 09.05.2025**· Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

-IE-