

SAFETY DATA SHEET

Issue Date 18-Nov-2025
Revision Number 3.06

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name 1-Chloro-2,4-dinitrobenzene
Other means of identification
Product Code(s) 044-03422,046-03421

Recommended use of the chemical and restrictions on use

Recommended Use For research use only.
Uses advised against Seek expert judgment when using for purposes other than those recommended.

Details of the supplier of the safety data sheet

Manufacturer Address	Distributor
FUJIFILM Wako Pure Chemical Corporation	FUJIFILM Irvine Scientific
1-2, Doshomachi 3-Chome,	E. Warner Avenue, Santa Ana, CA 92705-5505, U.S.A.: +1 949 261 7800
Chuo-ku Osaka 540-8605, Japan	Fax: +1 949 261 6522
Tel : +81-6-6203-3741	
Fax: +81-6-6201-5964	

2. HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 2
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Specific target organ toxicity (single exposure)	Category 1, Category 3
Category 1 blood system	
Category 3 Respiratory irritation	
Specific target organ toxicity (repeated exposure)	Category 2
Category 2 nervous system, blood system	
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Pictograms



Signal word

Danger

Hazard statements

- H315 - Causes skin irritation
- H318 - Causes serious eye damage
- H302 - Harmful if swallowed
- H310 - Fatal in contact with skin
- H341 - Suspected of causing genetic defects
- H335 - May cause respiratory irritation

H317 - May cause an allergic skin reaction
 H410 - Very toxic to aquatic life with long lasting effects
 H400 - Very toxic to aquatic life
 H370 - Causes damage to the following organs: blood system
 H373 - May cause damage to the following organs through prolonged or repeated exposure: nervous system, blood system

Precautionary statements-(Prevention)

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Do not get in eyes, on skin, or on clothing Contaminated work clothing should not be allowed out of the workplace Wear protective gloves Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Avoid release to the environment

Precautionary statements-(Response)

IF EXPOSED: Call a POISON CENTER or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 IF ON SKIN: Gently wash with plenty of soap and water Immediately call a POISON CENTER or doctor/physician Remove/Take off immediately all contaminated clothing If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth
 Collect spillage

Precautionary statements-(Storage)

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

Precautionary statements-(Disposal)

Dispose of contents/container to an approved waste disposal plant

Others

Other hazards Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Substance

Formula ClC6H3(NO2)2

Chemical Name	Molecular weight	CAS RN	Weight-%
1-Chloro-2,4-dinitrobenzene	202.55	97-00-7	99.0

Impurities and/or Additives: Not applicable

4. FIRST AID MEASURES

First aid measures

General Information Immediate medical attention is required.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water.

Inhalation Remove to fresh air.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing media

Water spray (fog). Carbon dioxide (CO₂). Foam. Extinguishing powder. Sand.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion data

Sensitivity to Mechanical none.

Impact

Sensitivity to Static Discharge none.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods and material for containment and cleaning up Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Use personal protective equipment as required. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Avoid creating dust.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures

Avoid contact with strong oxidizing agents.

Protective measures

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container protect from light, store in well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Store locked up.

Packaging materials Glass.

Incompatible materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Exposure limits Not applicable

Personal protective equipment

Respiratory protection Dust mask (JIS T 8151)
Hand protection chemical protective gloves (JIS T 8116)
Eye protection protective eyeglasses or chemical safety goggles (JIS T 8147)
Skin and body protection Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Color White - reddish yellow
Appearance crystals - crystalline powder

Odor characteristic odor

pH no data available

Melting point/freezing point 49 - 53 °C

Boiling point, initial boiling point and boiling range 315 °C

Flash point 194 °C

Evaporation rate: no data available

Flammability (solid, gas): no data available

Upper/lower flammability or explosive limits

Upper: 22 v/v%

Lower: 2.0 v/v%

Vapour pressure no data available

Vapour density no data available

Specific Gravity / Relative density 1.7

Solubilities Ethanol and Diethyl ether : slightly free soluble . water : practically insoluble,or insoluble .

n-Octanol/water partition coefficient:(log Pow) no data available

Auto-ignition temperature: 432 °C

Decomposition temperature: no data available

Viscosity (coefficient of viscosity) no data available

Dynamic viscosity no data available

Particle characteristics no data available

10. STABILITY AND REACTIVITY

Stability

Chemical stability Has sublimation. May be altered by light.

Reactivity no data available

Hazardous reactions

None under normal processing

Conditions to avoid

Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark, Shock

Incompatible materials

Strong oxidizing agents

Hazardous decomposition productsCarbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Halides**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
1-Chloro-2,4-dinitrobenzene	= 640 mg/kg (Rat)	= 130 mg/kg (Rabbit)	N/A

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Skin irritation/corrosion

Chemical Name	Skin corrosion/irritation source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagenicity source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
1-Chloro-2,4-dinitrobenzene	Based on the NITE GHS classification results.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea

1-Chloro-2,4-dinitrobenzene 97-00-7	NOEC : Pseudokirchneriella subcapitata 0.0060 mg/L 72 h	LC50 : Oryzias latipes 0.157 mg/L 96 h	N/A	EC50 : Daphnia magna 0.48 - 0.51 mg/L 48 h
----------------------------------------	---------------------------------------------------------------	-------------------------------------------	-----	-----------------------------------------------

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility

no data available

Chemical Name	Partition coefficient
1-Chloro-2,4-dinitrobenzene 97-00-7	2.24

Mobility in soil

No information available

Other Data

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Precautionary including method of disposing contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT

UN/ID No	UN3441
Proper shipping name:	Chlorodinitrobenzenes, solid
UN classification	6.1
Subsidiary hazard class	
Packing group	II
Marine pollutant	Yes

IATA

UN/ID No	UN3441
Proper shipping name:	Chlorodinitrobenzenes, solid
UN classification	6.1
Subsidiary hazard class	
Packing group	II
Environmentally Hazardous Substance	Yes

IMDG

UN/ID No	UN3441
Proper shipping name:	Chlorodinitrobenzenes, solid
UN classification	6.1
Subsidiary hazard class	P
Packing group	II
Marine pollutant (Sea)	Yes

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS RN	Weight-%	SARA 313 - Threshold Values %
1-Chloro-2,4-dinitrobenzene - 97-00-7	97-00-7	99.0	N/A

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations**California Proposition 65**

This product does not contain any chemicals regulated by Proposition 65

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
1-Chloro-2,4-dinitrobenzene 97-00-7	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

Issue Date 18-Nov-2025

Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet