



SAFETY DATA SHEET

According to JIS Z 7253:2019 Revision date 11-Sep-2024 Revision Number 3.06

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	m-Dichlorobenzene
Product Code	048-19812,042-19815
Supplier	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-2029
Emergency telephone number Recommended uses	+81-6-6203-3741 / +81-3-3270-8571 For research use only
Restrictions on use	Seek expert judgment when using for purposes other than those recommended.

Section 2: HAZARDS IDENTIFICATION

GHS classification <u>Classification of the substance or mixture</u> Flammable liquids Acute toxicity - Oral Acute toxicity - Inhalation (Vapors) Skin corrosion/irritation Serious eye damage/eye irritation Specific target organ toxicity (single exposure) Category 1 liver Category 3 Respiratory irritation, Narcotic effects Specific target organ toxicity (repeated exposure) Category 2 liver Acute aquatic toxicity Chronic aquatic toxicity

Pictograms



Signal word

Danger

Hazard statements

- H227 Combustible liquid
- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H302 Harmful if swallowed
- H331 Toxic if inhaled
- H335 May cause respiratory irritation
- H336 May cause drowsiness or dizziness
- H401 Toxic to aquatic life
- H410 Very toxic to aquatic life with long lasting effects
- H370 Causes damage to the following organs: liver
- H373 May cause damage to the following organs through prolonged or repeated exposure: liver

Category 4 Category 4 Category 3 Category 2 Category 2A Category 1, Category 3

Category 2

Category 2 Category 1

Precautionary statements-(Prevention)

- · 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
- Wear protective gloves/protective clothing/eye protection/face protection
- Do not breathe dust/fume/gas/mist/vapors/spray
- Avoid release to the environment
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- · Keep cool

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 eye irritation persists: Get medical advice/attention
- · IF ON SKIN: Wash with plenty of soap and water
- If skin irritation occurs: Get medical advice/attention
- · Take off contaminated clothing and wash 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 SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- Rinse mouth
- In case of fire: Use suitable extinguishing media for extinction
- 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

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Substance

Formula

C6H4Cl2

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
1,3-Dichlorobenzene	98.0	147.00	(3)-41	*	541-73-1
Note on ICUL No.					

Note on ISHL No.:

* in the table means announced chemical substances.

Section 4: FIRST AID MEASURES

Inhalation

Remove to fresh air. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

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.

Protection of first-aiders

Use personal protective equipment as required.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

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

Unsuitable extinguishing media

No information available

Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Vapors may form explosive mixtures with air

with air

Special extinguishing method

No information available

Special protective actions for fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminent and methods and materials for cleaning up

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Recoverly, neutralization

No information available

Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE

Handling

Technical measures

Highly flammable. Avoid contact with high temperature objects, spark, and strong oxidizing agents. Use with local exhaust ventilation.

Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

Safety handling precautions

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Storage

Safe storage conditions	
Storage conditions	Keep container protect from light, store
-	in well-ventilated place at room temperature (preferably cool). Keep container tightly
	closed.
Safe packaging material	Glass
Incompatible substances	Strong oxidizing agents

Section 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 handand eye-wash facility. And display their position clearly.

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Personal protective equipment Respiratory protection Hand protection Eye protection Skin and body protection

gas mask for organic gas (JIS T 8152) chemical protective gloves (JIS T 8116) protective eyeglasses or chemical safety goggles (JIS T 8147) Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protective equipment to them.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form	
Color	Colorless - slightly yellow
Turbidity	clear
Appearance	liquid
Odor	characteristic odor
Melting point/freezing point	-24 °C
Boiling point, initial boiling point and boiling range	173 °C
Flammability	Combustible liquid
Evaporation rate:	no data available
Flammability (solid, gas):	no data available
Upper/lower flammability or explosive limits	
Upper:	no data available
Lower:	no data available
Flash point	62 °C
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available
рН	no data available
Viscosity (coefficient of viscosity)	no data available
Dynamic viscosity	no data available
Solubilities	Ethanol and Diethyl ether : Very soluble. water : practically
	insoluble,or insoluble .
n-Octanol/water partition coefficient:(log Pow)	3.72
Vapour pressure	no data available
Specific Gravity / Relative density	1.287 - 1.295 g/mL
Vapour density	5.1 (air = 1)
Particle characteristics	no data available

Section 10: STABILITY AND REACTIVITY

Stability

 Reactivity
 no data available

 Chemical stability
 May be altered by light.

 Hazardous reactions
 None under normal processing

 Conditions to avoid
 Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark

 Incompatible materials
 Strong oxidizing agents

Hazardous decomposition products

Carbon monooxide (CO), Carbon dioxide (CO2), Halides

Section 11: TOXICOLOGICAL INFORMATION

*NITE: National Institute of Technology and Evaluation (JAPAN) https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
1,3-Dichlorobenzene	580 mg/kg (Rat)	>2000 mg/kg (Rat)	17.6 mg/L (Rat) 4 h

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
			Based on the NITE GHS
	classification results.	classification results.	classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
1,3-Dichlorobenzene	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS
	classification results.	classification results.	classification results.

Skin irritation/corrosion

Chemical Name	Skin corrosion/irritation source information	
1,3-Dichlorobenzene	Based on the NITE GHS classification results.	
Serious eye damage/ irritation		
Chemical Name	Serious eye damage/irritation source information	
1,3-Dichlorobenzene	Based on the NITE GHS classification results.	
Respiratory or skin sensitization		
Chemical Name	Respiratory or Skin sensitization source information	
1,3-Dichlorobenzene	Based on the NITE GHS classification results.	
Reproductive cell mutagenicity		
Chemical Name	germ cell mutagencity source information	
1,3-Dichlorobenzene	Based on the NITE GHS classification results.	
Carcinogenicity		
Chemical Name	Carcinogenicity source information	
1,3-Dichlorobenzene	Based on the NITE GHS classification results.	

Chemical Name	NTP	IARC	ACGIH	JSOH
1,3-Dichlorobenzene	N/A	Group 3	N/A	N/A
541-73-1				
Reproductive toxicity				
Chemical Name		Reproducti	ve toxicity source	information
1,3-Dichlorobenzene	E	Based on the NITE GH	IS classification res	ults.
STOT-single exposure	·			
Chemical Name		STOT -single	e exposure- sourc	e information
1,3-Dichlorobenzene		Based on the NITE GHS classification results.		
STOT-repeated exposure	· · · · ·			
Chemical Name		STOT -repeate	ed exposure- sour	ce information
1,3-Dichlorobenzene		Based on the NITE GHS classification results.		
Aspiration hazard				
Chemical Name		Aspiratio	n Hazard source in	nformation
1.3-Dichlorobenzene		Based on the NITE GHS classification results.		ults.

Section 12: ECOLOGICAL INFORMATION

*NITE: National Institute of Technology and Evaluation (JAPAN) https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
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1,3-Dichlorobenzene	EC50 : Pseudokirchneriella	LC50 : Pimephales promelas	LC50 / EC50 : Mysidopsis
	subcapitata	6.95 - 9.28 mg/L 96 h	bahia
	75.2 - 157 mg/L 96 h	_	2.85 mg/L 96 h

Other data

Chemical Name	Short-term (acute) hazardous to the	Long-term (chronic) hazardous to the
	aquatic environment source information	aquatic environment source information
1,3-Dichlorobenzene	Based on the NITE GHS classification	Based on the NITE GHS classification
	results.	results.

y

No information available No information available No information available No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations. Contaminated container and contaminated packaging

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

Section 14: TRANSPORT INFORMATION

ADR/RID	
UN number	UN2810
Proper shipping name:	Toxic liquid, organic, n.o.s. (1,3-Dichlorobenzene)
UN classfication	6.1
Subsidiary hazard class	
Packing group	
Marine pollutant	Yes
IMDG	
UN number	UN2810
Proper shipping name:	Toxic liquid, organic, n.o.s. (1,3-Dichlorobenzene)
UN classfication	6.1
Subsidiary hazard class	
Packing group	III
Marine pollutant (Sea)	Yes
Transport in bulk according to	No information available
Annex II of MARPOL 73/78 and	
the IBC Code	
IATA	
UN number	UN2810
Proper shipping name:	Toxic liquid, organic, n.o.s. (1,3-Dichlorobenzene)
UN classfication	6.1
Subsidiary hazard class	Ш
Packing group	
Environmentally Hazardous Substance	Yes
Substance	

Section 15: REGULATORY INFORMATION

<u>Japanese regulations</u> Fire Service Act Poisonous and Deleterious	Category IV, Class II petroleums, dangerous grade 3 Not applicable
Substances Control Law Industrial Safety and Health Act	Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1

	Item 4)
Industrial Safety and Health Act ([2025.4.1~] Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57)
<u>2025~)</u>	【2025.4.1~】Notifiable Substances (Law Art.57-2)
Regulations for the carriage	Toxic Substances - Poison (Ordinance Art.3, Ministry of Transportation Ordinance
and storage of dangerous	Regarding Transport by Ship and Storage, Attached Table 1)
goods in ship	
Civil Aeronautics Law	Toxic and Infectious Substances (Ordinance Art.194, MITL Nortification for Air
	Transportation of Explosives etc., Attached Table 1)
Marine Pollution Prevention	Enforcement ordinance Appendix No. 1 Noxious liquid substance Category X
Law	
Pollutant Release and Transfer	Class 1
Register Law	
(2023.4.1-)	
Class 1 - No.	181
Export Trade Control Order	Not applicable

Chemical Name	Poisonous and Deleterious Substances Control Law	Industrial Safety and Health Act Substances (Law Art.57-2)	Pollutant Release and Transfer Register Law (2023.4.1-)
1,3-Dichlorobenzene 541-73-1 (98.0)	-	-	Applicable

Section 16: OTHER INFORMATION

IATA dangerous Goods Regulations RTECS:Registry of Toxic Effects of Chemical Substances Japan Industrial Safety and Health Association GHS Model SDS Dictionary of Synthetic Oraganic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd. Chemical Dictionary, Kyouritsu Publishing Co., Ltd. etc	Iterature references and irces for data etc.	of Toxic Effects of Chemical Substances Safety and Health Association GHS Model SDS hetic Oraganic Chemistry, SSOCJ, Koudansha Scientific Co.Ltd.
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Disclaimer

This SDS is according to JIS Z 7253: 2019. 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, 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.

GHS Classification is according to JIS Z 7252:2019. *JIS: Japanese Industrial Standards

End of Safety Data Sheet