SAFETY DATA SHEET (SDS)

in accordance with Regulation (EC) No 1907/2006 (REACH), Annex II — Regulation (EU) 2020/878

Date: 26.09.2026 | Version: 3 | EN

chlorek metylenu

dichloromethane

CAS 75-09-2

CH_2Cl_2 | EC 200-838-9

易 普 化 工
EAPEARL CHEM

MOLAR MASS	LOGP
84.93	1.25

HAZARD CLASSIFICATION (GHS / CLP)



Warning

H351

Hazard class scope limited to the harmonised classification (CLP Annex VI); classes outside the harmonised entry may require supplier self-classification (CLP Art. 4(3)) — verify with the supplier safety data sheet.

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1. Identification of the substance/mixture and of the company/undertaking

1.1 Substance name	chlorek metylenu
1.1 IUPAC name	dichloromethane
1.1 CAS number	75-09-2
1.1 EC number	200-838-9
1.1 PubChem CID	6344
1.1 InChIKey	YMWUJEATGCHHMB-UHFFFAOYSA-N
1.1 SMILES	C(Cl)Cl
1.1 Molecular formula	CH_2Cl_2 [7]
1.1 Molar mass	84.93 g/mol [7]
1.1 Exact mass	83.9534 Da [7]

1.2 Uses

For laboratory and research purposes. Not for use in the production of food, medicines or cosmetics without appropriate authorisation.

1.3 Details of the supplier

REFERENCE COPY — NO SUPPLIER DETAILS — NOT FOR DISTRIBUTION	Supplier details are not included in this reference copy. The supplier placing the substance on the market must complete this section and remains responsible for the sheet under REACH. MolGod.org prepares documentation and is not the supplier of this substance.

1.4 Emergency telephone number

Emergency telephone	+48 42 631 47 24

Toxicological Information Centre (CIT), Łódź — available 24/7

2. Hazards identification

GHS:



PPE:



Warning

Hazard statements (H) [3][4][12]

H351	Suspected of causing cancer

Precautionary statements (P) [3][4][12]

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P308+P313	IF exposed or concerned: Get medical advice/attention
P405	Store locked up
P501	Dispose of contents/container to an approved waste collection point

NOTE: CMR substance — employment of pregnant and breastfeeding women in work harmful to health is prohibited (Polish Labour Code Art. 176 § 1; Council of Ministers Regulation of 3 April 2017, Journal of Laws 2017 item 796). [18][19]

Hazard class scope limited to the harmonised classification (CLP Annex VI); classes outside the harmonised entry may require supplier self-classification (CLP Art. 4(3)) — verify with the supplier safety data sheet.

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3. Composition/information on ingredients

Substance type	pure substance
CAS Number	75-09-2
EC number	200-838-9
Molecular formula	CH_2Cl_2
Concentration	≥99% (typical reagent-grade purity — to be confirmed by the supplier's specification)
Clp index no	602-004-00-3

4. First aid measures



Inhalation

Move the affected person to fresh air. Keep at rest. If not breathing: artificial respiration (qualified personnel only). [1][2][16]

Skin contact

Remove contaminated clothing. Rinse skin with soap and water (min. 15 minutes). [1][2][16]

Eye contact

Rinse eyes with running water (min. 15 minutes). Remove contact lenses if possible. If irritation persists — consult an ophthalmologist. [1][2][16]

Ingestion

Do NOT induce vomiting (unless directed by a physician). Rinse mouth with water. Never give anything by mouth to an unconscious person. Poison Centre Łódź: +48 42 631 47 24 (24/7). Emergency number: 112. [1][2][16]

Symptoms and effects

No specific symptoms described in the literature. [3][12]

Notes for physician

Requires verification

Emergency numbers: Emergency: 112 (EU-wide). Poison centre: as designated in the country of placing on the market (CLP Art. 45).

5. Firefighting measures

Suitable extinguishing media	Adapt extinguishing media to surroundings. CO2, dry powder, foam.
Unsuitable extinguishing media	No specific restrictions.
Specific hazards	Thermal decomposition products:CO, CO2, HCl (hydrogen chloride). [17]
Advice for firefighters	Use self-contained breathing apparatus (SCBA). Full protective suit.
Auto-ignition temperature	640°C [7]

6. Accidental release measures

Personal precautions	Use personal protective equipment (see Section 8). Avoid breathing vapours. [1][2][16]
Environmental precautions	Prevent entry into sewers, groundwater and surface water. [1][2][16]
Methods for containment and cleaning up	Contain the spill with a barrier. Absorb with inert material (sand, vermiculite, diatomaceous earth). Collect into sealed, labelled containers. Do not release into drains. [1][2][16]
Related sections	8; 13

7. Handling and storage

Precautions	Work in a fume hood or with adequate ventilation. No eating, drinking or smoking in the work area. [1][2][16]

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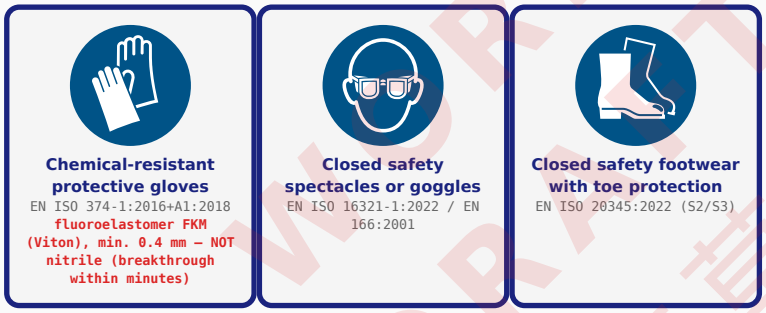
Storage temperature	Store at room temperature (15-25°C) or as indicated on the label. [1][2][16]
Humidity	Store in a dry place (<60% RH). [1][2][16]
Light	Protect from direct sunlight. [1][2][16]
Incompatible materials	Strong oxidizers. [17]

8. Exposure controls/personal protection

8.1 Control parameters

OEL — NDS (Poland)	NDS = 88 mg/m³ (TWA) · NDSCh = 353 mg/m³ (STEL) — Rozp. MRiPS Dz.U. 2024 poz.1017 [28]
OEL (EU)	The EU OEL value has not been verified against the available dataset — check the IOELV/BOELV directives; do not assume the absence of a value.
DNEL	No data available.
PNEC	No data available.

8.2 Personal protective equipment (PPE) [5][6][20]



9. Physical and chemical properties

Property (item 9.1)	Value	Source
Physical state	Liquid	
Colour	No data available.	
Odour	No data available.	
pH (1% aqueous solution)	No data available.	
Melting point	-97.2°C [8] [7][26]	
Boiling point	39.8292°C [8] [7][26]	
Flash point	No data available.	
Flammability	No data available.	
Lower and upper explosion limit	13–22 % obj. [26]	
Density (20°C)	1.322 g/cm³ (experimental data) [7]	
Vapour pressure	58.662 kPa (440 mmHg, 25°C) (experimental data) [7]	
Relative vapour density	2.93 [25]	
Dynamic viscosity	0.437 mPa·s [7]	
Kinematic viscosity	No data available.	
Refractive index nD^{20}	1.4244 (experimental data) [7]	

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Property (item 9.1)	Value	Source
Auto-ignition temperature	640°C (experimental data) [7]	
Decomposition temperature	Not applicable	
Surface Tension	27.2 mN/m [9]	
Rozpuszcz. w wodzie	13.2 g/L, 25°C [7]	
Particle characteristics	Not applicable (REACH 9.1(r))	
Partition coefficient n-octanol/water (log value)	1.25 [9][27]	
Molar mass	84.93 g/mol [7]	
Molecular formula	CH_2Cl_2 [7]	
Lipinski rule (RO5)	PASS	

Where a property above reads "No data available", no measured value was found in the public sources consulted for this substance. The property has not been determined by MolGod.org and no value is inferred. "Not applicable" means the property has no meaning for this substance in the form supplied.

10. Stability and reactivity

Reactivity	Stable under normal storage and handling conditions.
Chemical stability	Thermally stable under recommended conditions.
Hazardous reactions	No hazardous reactions known under normal conditions.
Conditions to avoid	High temperatures, direct sunlight, moisture.
Incompatible materials	Strong oxidizers.
Decomposition products	Thermal decomposition products:CO, CO2, HCl (hydrogen chloride).

11. Toxicological information

LD50 (oral)	2136 mg/kg (rat) [10][11]
LD50 (dermal)	No data available.
LC50 (inhalation)	LC50 56000 mg/m3 (rat) [11][12]
Skin irritation	Not classified for this hazard (outside the scope of the harmonised classification in CLP Annex VI; verify supplier self-classification) [3][12]
Eye irritation	Not classified for this hazard (outside the scope of the harmonised classification in CLP Annex VI; verify supplier self-classification) [3][12]
Sensitisation	Not classified for this hazard (outside the scope of the harmonised classification in CLP Annex VI; verify supplier self-classification) [3][12]
Mutagenicity	Not classified for this hazard (outside the scope of the harmonised classification in CLP Annex VI; verify supplier self-classification) [3][12]
Carcinogenicity	Category 2 (harmonised classification, Annex VI to CLP).
IARC classification (carcinogenicity)	IARC Group 2A — probably carcinogenic to humans. [local snapshot — not verified against the current IARC list] [23]
Reproductive toxicity	Not classified for this hazard (outside the scope of the harmonised classification in CLP Annex VI; verify supplier self-classification) [3][12]
STOT — single exposure	Not classified for this hazard (outside the scope of the harmonised classification in CLP Annex VI; verify supplier self-classification) [3][12]
STOT — repeated exposure	Not classified for this hazard (outside the scope of the harmonised classification in CLP Annex VI; verify supplier self-classification) [3][12]
Aspiration hazard	Not classified for this hazard (outside the scope of the harmonised classification in CLP Annex VI; verify supplier self-classification) [3][12]

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12. Ecological information

Aquatic toxicity	LC_{50} (fish): 97 mg/L (Fundulus heteroclitus, 48 h). EC_{50} (Daphnia): 177 mg/L (Daphnia magna, 48 h). EC_{50} (algae): 0.98 mg/L (Chlorella vulgaris, 96 h) [24]
Persistence / biodegradability	No data available.
Bioaccumulative potential	log Kow = 1.25 [9]. Low bioaccumulation potential (log Kow < 4.5 — PBT/vPvB screening criterion per ECHA Guidance R.11). [21][22]
Mobility in soil	No data available.
PBT/vPvB assessment	Insufficient data to assess PBT/vPvB.
Endocrine disrupting properties	No information.

13. Disposal considerations

Disposal method	Hand over for disposal to licensed contractors in accordance with national and local regulations. Do not discharge into sewers.
Waste code (EWC)	16 05 06* — Laboratory and analytical chemicals (np. chemical reagents) zawierajace substancje niebezpieczne. EWC code verification required. [15]
Packaging	Cleaned packaging may be recycled. Contaminated packaging must be treated as hazardous waste.

14. Transport information

UN number	UN 1593 [14]
Proper shipping name	Dichloromethane [14]
Transport hazard class	6.1 [14]
Packing Group	III [14]
Environmental hazard	The aquatic hazard classes are not covered by the harmonised entry in Annex VI. Data in Section 12 indicate a value below the classification threshold — supplier self-classification (Article 4(3) CLP) and verification per ADR 2.2.9 / IMDG are required. Do not assume that marking as a marine pollutant is not required. [3]
Special precautions	Handle as dangerous goods according to the assigned class (ADR/IMDG/IATA); apply the precautions appropriate to that class.
CN/HS code	CN/HS code: verification required in the Eurostat Combined Nomenclature.
Notes	Transport classification per ADR / UN Model Regulations (UN number, class and packing group above). Verify the ADR/IMDG/IATA edition in force on the date of shipment. [14]
Environmentally hazardous (mark: fish and tree)	Requires verification

15. Regulatory information

SVHC status	SVHC status not verified against the available dataset — check the current ECHA Candidate List; do not assume absence. [1]
REACH Annex XIV	Not verified against the ECHA Authorisation List — check REACH Annex XIV. [1]
REACH Annex XVII	Subject to REACH restriction Annex XVII (entry59): Dichloromethane — banned in paint strippers at a concentration >= 0.1% by weight for the general public and (with exemptions) professional users. [1]
IARC classification (carcinogenicity)	IARC Group 2A — probably carcinogenic to humans.

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16. Other information

Legal status of classification: harmonised under CLP Annex VI — Reg. (EC) No 1272/2008 (as at the date of issue).Entries with an entry-into-force date after26.09.2026 were omitted as future (not yet applicable).

Data aggregated automatically from public reference databases (PubChem, ECHA, NIST and others).

Scientific citations (5)

NTP Toxicology and Carcinogenesis Studies of Dichloromethane (Methylene Chloride) (CAS No. 75-09-2) in F344/N Rats and B6C3F1 Mice (Inhalation Studies).. National Toxicology Program technical report series (1986).

Andrzej Nastała, Paweł Maksimowski, Waldemar Tomaszewski. Badania reakcji nitrowania toluenu za pomocą mieszaniny kwas azotowy(V)/dichlorometan. Materiały Wysokoenergetyczne / High Energy Materials (2018). DOI: 10.22211/matwys/0166

Lee JS, Jeon YJ, Kang JY et al.. Aquilariae Lignum Methylene Chloride Fraction Attenuates IL-1β-Driven Neuroinflammation in BV2 Microglial Cells.. International journal of molecular sciences (2020). DOI: 10.3390/ijms21155465

Phillips JA. Methylene Chloride.. Workplace health & safety (2018). DOI: 10.1177/2165079917736319

Goodwin J, Holm F. Methylene Chloride Comment.. New solutions : a journal of environmental and occupational health policy : NS (2023). DOI: 10.1177/10482911231198148

Full text of H statements

H351	Suspected of causing cancer

Full text of P statements

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P308+P313	IF exposed or concerned: Get medical advice/attention
P405	Store locked up
P501	Dispose of contents/container to an approved waste collection point

Abbreviations

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (Reg. (EC) 1272/2008)
CMR	Carcinogenic, Mutagenic, toxic to Reproduction
DNEL	Derived No-Effect Level
EC	European Community number
EPI	Personal protective equipment
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
SDS	Safety Data Sheet
LC50	Lethal Concentration, 50%
LD50	Lethal Dose, 50%
NDS	Maximum admissible concentration (workplace, PL)
NDSCh	Short-term exposure limit (PL)
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic

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PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Reg. (EC) 1907/2006)
STOT	Specific Target Organ Toxicity
SVHC	Substance of Very High Concern
TPSA	Topological Polar Surface Area
vPvB	very Persistent and very Bioaccumulative

Version history

v3 (26.09.2026)	Based on ECHA harmonised classification (Annex VI to CLP, ATP 23).

References

[1] EP and Council. Reg.(EC) No 1907/2006 (REACH). Art.31, Annex II. OJ EU L 396/2006. URL: https://eur-lex.europa.eu/eli/reg/2006/1907/oj Accessed: 2026-09-26.

[2] European Commission. Reg.(EU) 2020/878 — amending Annex II REACH. OJ EU L 203/2020. From 01.01.2023. URL: https://eur-lex.europa.eu/eli/reg/2020/878/oj Accessed: 2026-09-26.

[3] EP and Council. Reg.(EC) 1272/2008 (CLP) + ATP 23. OJ EU L 353/2008. (2026-07-07) URL: https://eur-lex.europa.eu/eli/reg/2008/1272/oj Accessed: 2026-09-26.

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[5] ISO. ISO 7010:2019 — Graphical symbols. Safety signs. URL: https://www.iso.org/standard/72424.html Accessed: 2026-09-26.

[6] ISO. ISO 3864-1:2011 — Safety colours and safety signs. URL: https://www.iso.org/standard/51021.html Accessed: 2026-09-26.

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[9] Yaws, C.L. Thermophysical Properties of Chemicals and Hydrocarbons. 2nd ed. Amsterdam: Elsevier (Gulf Professional Publishing), 2014.

[10] NIOSH. Registry of Toxic Effects of Chemical Substances (RTECS). Cincinnati: NIOSH. URL: https://www.cdc.gov/niosh/rtecs

[11] Agency for Toxic Substances and Disease Registry (ATSDR). Medical Management Guidelines / Toxicological Profile. Atlanta, GA: U.S. Department of Health and Human Services. URL: https://www.atsdr.cdc.gov

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[14] UNECE. European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), 2025 edition (ECE/TRANS/352). Geneva: United Nations. URL: https://unece.org/adr

[15] European Commission. Decision 2000/532/EC establishing a list of wastes (European Waste Catalogue). OJ EU L 226/3. URL: https://eur-lex.europa.eu/eli/dec/2000/532/oj

[16] European Chemicals Agency (ECHA). Guidance on the Compilation of Safety Data Sheets. Version 4.0. Helsinki: European Chemicals Agency, 2020. URL: https://echa.europa.eu/documents/10162/2324906/sds_en.pdf

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[18] Act of 26 June 1974 — Labour Code (Poland), Art. 176 § 1. Journal of Laws 2023 item 1465. URL: https://isap.sejm.gov.pl

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[20] CEN. Personal protective equipment standards (EN ISO 374-1, EN 166, EN 149, EN 14387, EN ISO 20345). Brussels: European Committee for Standardization.

[21] ECHA. Guidance on Information Requirements and Chemical Safety Assessment, Chapter R.11: PBT/vPvB Assessment. Helsinki: European Chemicals Agency. URL: https://echa.europa.eu/guidance-documents/guidance-on-information-requirements-and-chemical-safety-assessment

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[28] MRiPS Regulation of 12.06.2018 — NDS/NDN. Journal of Laws 2024 item 1017. URL: https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20240001017 Accessed: 2026-09-26.

External links

NIST: https://webbook.nist.gov/cgi/cbook.cgi?ID=75-09-2

Wikidata: https://www.wikidata.org/wiki/Q421748

ChEMBL: https://www.ebi.ac.uk/chembl/compound_report_card/CHEMBL45967

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