Safety data sheet

according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

Printing date 14.03.2023 *Version number 11.0 (replaces version 10.0)* *Revision: 14.03.2023*

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

· ***1.1 Product identifier***

· ***Trade name:*** Dichloromethane, GC-MS, suitable for nitrosamine analysis

· ***Article number:*** CL0346
· ***CAS Number:***
75-09-2
· ***EC number:***
200-838-9
· ***Index number:***
602-004-00-3
· ***1.2 Relevant identified uses of the substance or mixture and uses advised against***
· ***Sector of Use*** SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
· ***Product category*** PC21 Laboratory chemicals
· ***Process category***
PROC5 Mixing or blending in batch processes
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC15 Use as laboratory reagent
· ***Application of the substance / the preparation:*** Laboratory reagent

· ***1.3 Details of the supplier of the safety data sheet***
· ***Manufacturer/Supplier:***
Scharlab, S.L.
C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa
08181 Sentmenat (Barcelona) SPAIN
Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65
email: scharlab@scharlab.com
Internet Web Site: www.scharlab.com
· ***Regional representation:***
Scharlab, S.L.
C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa
08181 Sentmenat (Barcelona) SPAIN
Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65
email: scharlab@scharlab.com
Internet Web Site: www.scharlab.com

· ***Further information obtainable from:*** technical department
· ***1.4 Emergency telephone number:***
Please contact the regional Scharlab distributor/dealer in your country
During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

SECTION 2: Hazards identification

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

health hazard

Carc. 2	H351	Suspected of causing cancer.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.

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Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
STOT SE 3	H335-H336	May cause respiratory irritation. May cause drowsiness or dizziness.

· ***2.2 Label elements***
· ***Labelling according to Regulation (EC) No 1272/2008***
The substance is classified and labelled according to the GB CLP regulation.
· ***Hazard pictograms***

GHS07 GHS08

· ***Signal word*** Warning
· ***Hazard statements***
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
· ***Precautionary statements***
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).
P405 Store locked up.
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***
75-09-2 dichloromethane
· ***Identification number(s)***
· ***EC number:*** 200-838-9
· ***Index number:*** 602-004-00-3

SECTION 4: First aid measures

· ***4.1 Description of first aid measures***
· ***General information:*** Immediately remove any clothing soiled by the product.
· ***After inhalation:***
Supply fresh air; consult doctor in case of complaints.
In severe cases such as cardiorespiratory arrest, artificial respiration techniques such as mouth-to-mouth resuscitation, cardiac massage, oxygen supply, etc. will be applied.

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· ***After skin contact:*** Generally the product does not irritate the skin.
· ***After eye contact:***
Rinse opened eye for several minutes under running water.
In the event that the injured person wears contact lenses, they must be removed as long as they are not stuck to the eyes, otherwise additional damage could occur.
Seek immediate medical advice.
· ***After swallowing:*** Do not induce vomiting; call for medical help immediately.
· ***4.2 Most important symptoms and effects, both acute and delayed***
The main symptoms are described for different cases of contact: Skin, eyes, inhalation and ingestion.
· ***4.3 Indication of any immediate medical attention and special treatment needed***
Treat symptomatically.

SECTION 5: Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents:***
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· ***5.2 Special hazards arising from the substance or mixture***
Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Hydrogen chloride (HCl)
Carbon oxides
Phosgene gas
· ***5.3 Advice for firefighters***
· ***Protective equipment:***
Cool exposed containers with water spray or mist.
In the work of extinction it is necessary to provide respiratory protection and full chemical protective clothing.
· ***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***
Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Eliminate all sources of ignition.
· ***6.2 Environmental precautions:*** Do not allow to enter sewers/ surface or ground water.
· ***6.3 Methods and material for containment and cleaning up:***
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 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***
Store in cool, dry place in tightly closed receptacles.
Avoid breathing mist/vapours/spray.
Keep away from heat and sources of ignition.

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Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Do not eat, drink or smoke during use.
Wash hands after any manipulation.

· ***Information about fire - and explosion protection:*** No special measures required.

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:***
Store in a cool, dry, well-ventilated place.
Store only in unopened original receptacles.
Provide ventilation for receptacles.
Provide solvent resistant, sealed floor.
· ***Information about storage in one common storage facility:***
Do not store together with strong acids or bases.
Store away from oxidising agents.
· ***Further information about storage conditions:***
Protect from humidity and water.
Protect from exposure to the light.
Avoid sources of heat, radiation, static electricity and contact with food.
See product's label for recommended storage temperature.
· ***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:***

75-09-2 dichloromethane

WEL Short-term value: 706 mg/m³, 200 ppm
Long-term value: 353 mg/m³, 100 ppm
BMGV, Sk

· ***DNELs***
DNEL consumer, acute. Systematic effects: Inhalative - 353 mg/m3
DNEL consumer, prolonged. Systematic effects:
- Inhalative: 88.3 mg/m3
- Dermic: 2395 mg/kg body weight
- Oral: 0.06 mg/kg body weight
DNEL worker, acute. Systematic effects: Inhalative - 706 mg/m3
DNEL for workers, cronic. Systematic effects:
- Inhalative: 353 mg/m3
- Dermic: 4750 mg/kg body weight

· ***PNECs***
PNEC (Fresh water): 0.54 mg/L
PNEC (Sea water): 0.194 mg/L
PNEC (Residual water depuration system): 26 mg/l
PNEC (Freshwater sediments): 4.47 mg/kg
PNEC (Seawater sediments): 1.61 mg/kg
PNEC (Soil): 0.583 mg/kg

· ***Ingredients with biological limit values:***

75-09-2 dichloromethane

BMGV 30 ppm
Medium: end-tidal breath
Sampling time: post shift
Parameter: carbon monoxide

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· ***Additional information:*** The lists valid during the making were used as basis.

· ***8.2 Exposure controls***
· ***Appropriate engineering controls*** No further data; see item 7.
· ***Individual protection measures, such as personal protective equipment***
· ***General protective and hygienic measures:***
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
· ***Respiratory protection:***
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
· ***Hand protection***

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· ***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.
· ***Penetration time of glove material***
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· ***Eye/face protection*** Goggles recommended during refilling

SECTION 9: Physical and chemical properties

· ***9.1 Information on basic physical and chemical properties***
· ***General Information***

· ***Physical state***	Fluid
· ***Colour:***	Colourless
· ***Odour:***	Like chlorine
· ***Odour threshold:***	Not determined.
· ***Melting point/freezing point:***	-97 °C
· ***Boiling point or initial boiling point and boiling range***	40 °C
· ***Flammability***	Not applicable.
· ***Lower and upper explosion limit***	
· ***Lower:***	13 Vol %
· ***Upper:***	22 Vol %
· ***Flash point:***	Not applicable.
· ***Ignition temperature:***	605 °C
· ***Decomposition temperature:***	Not determined.
· ***pH***	Not determined.
· ***Viscosity:***	
· ***Kinematic viscosity***	Not determined.
· ***Dynamic at 20 °C:***	0.42 mPas

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· ***Solubility***	
· ***water at 25 °C:***	13.2 g/l
· ***Partition coefficient n-octanol/water (log value)***	0.09691
· ***Vapour pressure at 25 °C:***	584 hPa
· ***Density and/or relative density***	
· ***Density at 20 °C:***	1.32 g/cm³
· ***Relative density***	Not determined.
· ***Vapour density***	Not determined.
· ***9.2 Other information***	
· ***Appearance:***	
· ***Form:***	Fluid
· ***Important information on protection of health and environment, and on safety.***	
· ***Auto-ignition temperature:***	Not determined.
· ***Explosive properties:***	Product does not present an explosion hazard.
· ***Molecular weight***	84.93 g/mol
· ***Change in condition***	
· ***Evaporation rate***	Not determined.
· ***Information with regard to physical hazard classes***	
· ***Explosives***	Void
· ***Flammable gases***	Void
· ***Aerosols***	Void
· ***Oxidising gases***	Void
· ***Gases under pressure***	Void
· ***Flammable liquids***	Void
· ***Flammable solids***	Void
· ***Self-reactive substances and mixtures***	Void
· ***Pyrophoric liquids***	Void
· ***Pyrophoric solids***	Void
· ***Self-heating substances and mixtures***	Void
· ***Substances and mixtures, which emit flammable gases in contact with water***	Void
· ***Oxidising liquids***	Void
· ***Oxidising solids***	Void
· ***Organic peroxides***	Void
· ***Corrosive to metals***	Void
· ***Desensitised explosives***	Void

SECTION 10: Stability and reactivity

· ***10.1 Reactivity***
Stable under normal conditions. If used according to the regulation no decomposition occurs.
· ***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***
Heat, open flames and sparks
Exposure to light
Exposure to moisture.

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· ***10.5 Incompatible materials:***
Acids
Bases
Alkali metals
Various metals
Aluminium
Zinc
Potassium
· ***10.6 Hazardous decomposition products:***
Carbon oxides
Phosgen
Chlorine

SECTION 11: Toxicological information

· ***11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008***
· ***Acute toxicity***
· ***LD/LC50 values relevant for classification:***

Oral	LD50	2,000 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rat)

Inhalative LC50/4 h 88 mg/l (rat)
· ***Skin corrosion/irritation*** Causes skin irritation.
· ***Serious eye damage/irritation*** Causes serious eye irritation.
· ***Carcinogenicity*** Suspected of causing cancer.
· ***STOT-single exposure*** May cause respiratory irritation. May cause drowsiness or dizziness.
· ***STOT-repeated exposure*** May cause damage to organs through prolonged or repeated exposure.
· ***11.2 Information on other hazards***
· ***Endocrine disrupting properties*** Substance is not listed.

SECTION 12: Ecological information

· ***12.1 Toxicity***
· ***Aquatic toxicity:***
Toxicity to fish
LC50 - Pimephales promelas (Fathead piscardo) - 193 mg/L - 96 h
Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (large sea flea) - 27 mg/L - 48 h
Toxicity to bacteria
EC50 - Pseudomonas putida - 500 mg/L - 16 h
EC50 static test - Activated sludge - 2590 mg/L - 0.66 min
· ***12.2 Persistence and degradability***
Biodegradability
Result: 68 % (Exposure time: 28 days) - OECD 301D
Easily biodegradable
· ***12.3 Bioaccumulative potential***
log Pow: 1.25 (20ºC)
Bioconcentration factor (BCF): 0.9
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
· ***12.4 Mobility in soil***
Henry's constant: 191 Pa·m3/mol (S ºC)
Log Koc: 167 (25ºC)

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· ***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***
· ***Additional ecological information:***
· ***General notes:***
Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

· ***13.1 Waste treatment methods***
· ***Recommendation***
Must be specially treated adhering to official regulations.
Keep chemicals in original containers. Do not mix with other waste.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· ***Uncleaned packaging:***
· ***Recommendation:***
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

· ***14.1 UN number or ID number***
· ***ADR, IMDG, IATA*** UN1593
· ***14.2 UN proper shipping name***
· ***ADR*** 1593 DICHLOROMETHANE
· ***IMDG, IATA*** DICHLOROMETHANE
· ***14.3 Transport hazard class(es)***

· ***ADR, IMDG, IATA***

· ***Class*** 6.1 Toxic substances.
· ***Label*** 6.1
· ***14.4 Packing group***
· ***ADR, IMDG, IATA*** III
· ***14.5 Environmental hazards:***
· ***Marine pollutant:*** No
· ***14.6 Special precautions for user*** Warning: Toxic substances.
· ***Hazard identification number (Kemler code):*** 60
· ***EMS Number:*** F-A,S-A
· ***Segregation groups*** (SGG10) Liquid halogenated hydrocarbons
· ***Stowage Category*** A
· ***14.7 Maritime transport in bulk according to IMO instruments*** Not applicable.

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· ***Transport/Additional information:***

· ***ADR***

· ***Limited quantities (LQ)***	5L
· ***Transport category***	2
· ***Tunnel restriction code***	E
· ***UN "Model Regulation":***	UN 1593 DICHLOROMETHANE, 6.1, III

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*** -
· ***15.2 Chemical safety assessment:*** A Chemical Safety Assessment has 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.

· ***Department issuing SDS:*** product safety department
· ***Contact:*** msds@scharlab.com
· ***Abbreviations and acronyms:***
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
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)
DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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Annex: Exposure scenario

· ***1 - Short title of the exposure scenario*** Laboratory use
· ***Sector of Use***
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU24 Scientific research and development
· ***Product category*** PC21 Laboratory chemicals
· ***Process category*** PROC15 Use as laboratory reagent
· ***Environmental release category***
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
· ***Description of the activities / processes covered in the Exposure Scenario***
See section 1 of the annex to the Safety Data Sheet.
· ***2 - Conditions of use***
· ***Duration and frequency***
5 workdays/week.
Emission days (days/year): 365
· ***Physical parameters***
· ***Physical state*** Fluid
· ***Concentration of the substance in the mixture*** Raw material.
· ***Used amount per time or activity*** 257 tons per year
· ***Other operational conditions***
· ***Other operational conditions affecting environmental exposure*** No special measures required.
· ***Other operational conditions affecting consumer exposure*** Keep out of the reach of children.
· ***Other operational conditions affecting consumer exposure during the use of the product***
Not applicable.
· ***Risk management measures***
· ***Worker protection***
· ***Organisational protective measures*** No special measures required.
· ***Technical protective measures***
Ensure that suitable extractors are available on processing machines
· ***Personal protective measures*** Do not inhale gases / fumes / aerosols.
· ***Measures for consumer protection*** Ensure adequate labelling.
· ***Environmental protection measures***
· ***Air*** No special measures required.
· ***Water***
The product should not be released into water without pretreatment. An on-site wastewater treatment is recommended. The typical site treatment technology of wastewater achieves removal efficiency (%): (93.5)
· ***Soil*** No special measures required.
· ***Notes*** In case of unintended release of the product: See section 6 of the Safety Data Sheet.
· ***Disposal measures***
Disposal must be made according to official regulations.
Ensure that waste is collected and contained.
· ***Disposal procedures***
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
· ***Waste type*** Partially emptied and uncleaned packaging
· ***3 - Exposure estimation***
· ***Worker (dermal)*** PROC 15: <0.1 (mg/kg/d)
· ***Worker (inhalation)*** PROC 15: 0.1-0.5 (mg/m3)
· ***Environment***
Concentration / maximum emission: Seawater 0.194 mg/l
Concentration / maximum emission: Freshwater 0.54 mg/l

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· ***4 - Guidance for downstream users***
Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.
Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.
For the risk assessment, the tools recommended by ECHA can be used.