



Preparing for the New Era of Laboratories

# MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

## **CARBON DISULPHIDE 99.9% AR**

PRODUCT CODE : B-3085

CAS No : 75-15-0

FORMULA : CS<sub>2</sub>

UN No : 1131

website : [www.labotiq.net](http://www.labotiq.net)

**MATERIAL SAFETY DATA SHEET (SDS/MSDS)**  
**CARBON DISULPHIDE 99.9% AR**

MSDS Number : 0428

Date : Dec 12<sup>th</sup>, 2024

Version : 1.0

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

- 1.1 Product Name** : CARBON DISULPHIDE 99.9% AR  
**Synonyms** : Carbon bisulfide, carbon sulfide, Dithiocarbonic anhydride  
**CAS No.** : 75-15-0  
**HS Code** : 2813 1000  
**Chemical Formula** : CS<sub>2</sub>  
**Molecular Weight** : 76,14 g/mol  
**Product Code** : B-3085  
**Brand** : Labotiq
- 1.2 Manufacturer** : Labotiq  
**Address** : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111  
**Website** : [www.labotiq.net](http://www.labotiq.net)  
**Email** : [labotiq.id@gmail.com](mailto:labotiq.id@gmail.com)  
**For information** : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710  
**Emergency number** : +6281316894650
- 1.3 Application** : Laboratory chemicals, Manufacture of substances, General Chemical reagent

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Flammable liquids, (Category 2)	H225: Highly flammable liquid and vapor.
Acute toxicity, (Category 4)	H332: Harmful if inhaled.
Skin irritation, (Category 2)	H315: Causes skin irritation.
Eye irritation, (Category 2)	H319: Causes serious eye irritation.
Reproductive toxicity, (Category 2)	H361fd: Suspected of damaging fertility.

Specific target organ toxicity – repeated exposure, (Category 1), Peripheral nervous system, Central nervous system, Cardiovascular system, Eyes

H372: Causes damage to organs through prolonged or repeated exposure.

For the full text of the H-Statements mentioned in this Section, see Section 16

**2.2 Label elements**

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H225

Highly flammable liquid and vapor.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

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H332	Harmful if inhaled.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H372	Causes damage to organs (Peripheral nervous system, Central nervous system, Cardio-vascular system, Eyes) through prolonged or repeated exposure.
Precautionary statement(s)	
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
Supplemental Hazard Statements	none

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	: Carbon bisulfide, carbon sulfide, Dithiocarbonic anhydrid
Formula	: CS <sub>2</sub>
Molecular weight	: 76,14 g/mol
CAS-No.	: 75-15-0

### 3.2 Mixture

Component	Classification	Concentration
Carbon Disulfide CAS-No. 75-15-0 EC-No. 200-843-6 Index-No. 006-003-00-3	Flam. Liq. 2; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; Repr. 2; STOT RE 1; H225, H332, H315, H319, H361fd, H372 Concentration limits: >= 1 %: Repr. 2, H361fd; >= 1 %: STOT RE 1, H372; 0,2 - < 1 %: STOT RE 2, H373;	<= 100 %

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For the full text of the H-Statements mentioned in this Section, see Section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General advice

Show this material safety data sheet to the doctor in attendance.

##### If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

##### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Consult a physician.

##### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses..

##### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

#### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>)

Dry powder

##### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

#### 5.2 Special hazards arising from the substance or mixture

Carbon oxides

Sulfur oxides

Flash back possible over considerable distance., Container explosion may occur under fire conditions., Vapors may form explosive mixture with air., May explode when heated. Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

#### 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

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**5.4 Further information**

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains. Risk of explosion.

**6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemisorb®). Dispose of properly. Clean up affected area.

**6.4 Reference to other sections**

For disposal see section 13.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Advice on safe handling**

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

**Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

**Hygiene measures Immediately**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities****Storage conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons. Refrigerate before opening.

**Storage class**

Storage class (TRGS 510): 3: Flammable liquids

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

**SECTION 8: Exposure controls/personal protection**

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### 8.1 Control parameters

**Ingredients with workplace control parameters**

### 8.2 Exposure controls

#### Appropriat engineering controls

General industrial hygiene practice.

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### Full contact

Material: Viton®

Minimum layer thickness: 0,7 mm

Break through time: > 480 min

Material tested: Vitoject®

##### Splash contact

Material: butyl-rubber

Minimum layer thickness: 0,7 mm

Break through time: 30 min

Material tested: Butoject® (KCL 898)

##### Body Protection

Flame retardant antistatic protective clothing.

##### Respiratory protection

Recommended Filter type: Filter B-(P3) The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

##### Control of environmental exposure

Do not let product enter drains. Risk of explosion.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	Form: liquid, clear
	Colour: colorless
Odour	odorless
Odour Threshold	No data available
pH	No data available
Melting point/freezingpoint	Melting point/range: -112 - -111 °C

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Initial boiling point and boiling range	46 °C
Flash point	-30 °C - c.c.
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 60 %(V) Lower explosion limit: 1 %(V)
Vapour pressure	274 hPa at 25 °C - OECD Test Guideline 104
Vapour density	No data available
Density	1,266 g/mL at 25 °C
Relative density	No data available
Water solubility	2,9 g/l at 20 °C - OECD Test Guideline 105- soluble
Partition coefficient: octanol/water	log Pow: 2,7 at 25 °C – OECD Test Guideline 117 - Bioaccumulation is not expected.
Auto-ignition temperature	No data available
Decomposition temperature	415 °C Decomposition energy (Mol): 89,7 kJ/mol Method: OECD Test Guideline 113
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available

### 9.2 Other safety information

Surface tension	71,9 mN/m at 1g/l at 19,5 °C – OECD Test Guideline 115
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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Vapors may form explosive mixture with air.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Risk of explosion with:

nitrogen oxides, permanganic acid, Oxidizing agents, halogen-halogen compounds, halogen oxides, Iron, ferric oxide, Chlorine, hydrazines, powdered aluminium, chlorine oxides, Potassium, potassium permanganate, Lithium, sodium, nitrogen dioxide, azides

Risk of ignition or formation of inflammable gases or vapours with:

Fluorine, phosphorus, sulfur, Activated charcoal, Powdered metals, Reducing agents

Exothermic reaction with: Zinc, Acids

### 10.4 Conditions to avoid

Warming.

### 10.5 Incompatible materials

rubber, various plastics

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

LD50 Oral - Rat - female - > 2.000 mg/kg

(OECD Test Guideline 423)

LC50 Inhalation - Rat - male and female - 4 h - 10,35 mg/l - vapor (OECD Test Guideline 403)

Acute toxicity estimate Inhalation - 10,35 mg/l - vapor

(Calculation method)

Dermal: No data available

**Skin corrosion/irritation**

Skin - Rabbit

Result: Severe irritations

Remarks: (Regulation (EC) No 1272/2008, Annex VI) (IUCLID)

**Serious eye damage/eye irritation**

Eyes - Human

Result: Severe irritations

Remarks: (Regulation (EC) No 1272/2008, Annex VI) (IUCLID)

**Respiratory or skin sensitisation**

Local lymph node assay (LLNA) - Mouse

Result: negative (OECD Test Guideline 429)

**Germ cell mutagenicity**

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: Micronucleus test

Species: Mouse

Cell type: Red blood cells (erythrocytes)

Application Route: inhalation (vapor)

Method: OECD Test Guideline 474

Result: negative

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

Causes damage to organs through prolonged or repeated exposure. - Peripheral nervous system, Central nervous system, Cardio-vascular system  
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

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**Aspiration hazard**

No data available

**Additional Information**

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

RTECS: FF6650000

May cause convulsions. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After uptake of large quantities:

inebriation

agitation, spasms, Unconsciousness, narcosis, Cyanosis, drop in blood pressure

After long-term exposure to the chemical:

Tiredness, muscular symptoms

After a latency period:

Stomach/intestinal disorders, psychoses

Changes in the blood count

Cardiac irregularities

Damage to:

Liver

Kidney

This substance should be handled with particular care.

**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish

semi-static test LC50 - Danio rerio (zebra fish) - 3 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 2,1 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae

static test EC50 - Chlorella pyrenoidosa - 21 mg/l - 96 h (OECD Test Guideline 201)

Toxicity to bacteria

static test EC50 - Bacteria - 13 mg/l - 24 h Remarks: (ECHA)

**12.2 Persistence and degradability**

Biodegradability

aerobic - Exposure time 28 d

Result: &gt; 80 % - Readily biodegradable. (OECD Test Guideline 301D)

Chemical Oxygen Demand (COD) 1,47 mg/g

Remarks: (IUCLID)

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**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

Product:

Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other adverse effects

Additional ecological information

Hazard for drinking water supplies.

Discharge into the environment must be avoided.

Stability in water

- &gt; 1 yr

Remarks: (IUCLID)

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information****14.1 UN number**

ADR/RID: 1131

IMDG: 1131

IATA: 1131

**14.2 UN proper shipping name**

ADR/RID: CARBON DISULPHIDE

IMDG: CARBON DISULPHIDE

IATA: Carbon disulphide

Passenger Aircraft: Not permitted for transport

Cargo Aircraft: Not permitted for transport

**14.3 Transport hazard class(es)**

ADR/RID: 3 (6.1)

IMDG: 3 (6.1)

IATA: 3 (6.1)

**14.4 Packaging group**

ADR/RID: I

IMDG: I

IATA: -

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

**14.6 Special precautions for user**

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**Further information**

No data available

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P5c

FLAMMABLE LIQUIDS

**Other regulations**

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

H225	Highly flammable liquid and vapor.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.

**National Fire Protection Association (U.S.A.):**

Health: 3

Flammability: 4

Reactivity: 0

**Further information**

*The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.*

Version : 1.0

Revision Date : December 12, 2024