

Chlorobenzene**101389-2.5L**

Version 1.1

Revision Date 02/09/2022

Print Date 05/29/2023

SECTION 1. IDENTIFICATION

Product name : Chlorobenzene

Number : 000000020754

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH
Wunstorfer Straße 40
Seelze, 30926

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid

Color : colourless

Odor : aromatic

Classification of the substance or mixture

Classification of the substance or mixture : Flammable liquids, Category 3
Acute toxicity, Category 4, Inhalation
Skin irritation, Category 2

GHS Label elements, including precautionary statements

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Symbol(s)

:



Signal word

: Warning

Hazard statements

: Flammable liquid and vapour.
Causes skin irritation.
Harmful if inhaled.

Precautionary statements

: **Prevention:**

Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER/ doctor if you feel unwell.
Specific treatment (see supplemental first aid instructions on this label).
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

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Carcinogenicity

ACGIH: Chlorobenzene 108-90-7
A3: Confirmed animal carcinogen

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C₆H₅Cl
Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Chlorobenzene	108-90-7	100.00 %

SECTION 4. FIRST AID MEASURES

General advice : First aider needs to protect himself. Move out of dangerous area. Immediately take off contaminated clothing and rinse body with plenty of water.

Inhalation : In case of accident by inhalation: remove casualty to fresh air and keep at rest. Call a physician immediately.

Skin contact : After contact with skin, wash immediately with plenty of water. If symptoms persist, call a physician.

Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. If eye irritation persists, consult a specialist.

Ingestion : When swallowed, allow water to be drunk. Call a physician immediately.

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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry powder
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during firefighting : Flammable.
Vapours may form explosive mixtures with air.
Vapours are heavier than air and may spread along floors.
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.
Fire may cause evolution of:
Carbon monoxide
Carbon dioxide (CO₂)
Hydrogen chloride gas
- Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Cool containers/tanks with water spray.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Wear personal protective equipment. Unprotected persons must be kept away.
Ensure adequate ventilation.
Remove all sources of ignition.
Avoid breathing vapours, mist or gas.
Avoid contact with skin, eyes and clothing.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.

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Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : Ventilate the area.
Do not use sparking tools.
Use explosion-proof equipment.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe handling : Wear personal protective equipment.
Use only in well-ventilated areas.
Avoid breathing vapours, mist or gas.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion : Keep product and empty container away from heat and sources of ignition.
No smoking.
Take precautionary measures against static discharges.
Vapours may form explosive mixtures with air.

Storage

Conditions for safe storage, including any incompatibilities : Store in area designed for storage of flammable liquids. Protect from physical damage.
Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage : Keep away from oxidizing agents and strongly acid or alkaline materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.

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Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Avoid breathing vapours, mist or gas.
Avoid contact with skin, eyes and clothing.

- Engineering measures : Local exhaust
- Eye protection : Safety goggles
- Hand protection : Impervious gloves
Gloves must be inspected prior to use.
Replace when worn.
- Skin and body protection : Protective suit
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hygiene measures : Keep working clothes separately.
Take off all contaminated clothing immediately.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Chlorobenzene	108-90-7	TWA : Time weighted average	(10 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended
Chlorobenzene	108-90-7	PEL : Permissible exposure limit	350 mg/m3 (75 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Chlorobenzene	108-90-7	TWA : Time weighted average	350 mg/m3 (75 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid
Color	: colourless
Odor	: aromatic
Odor threshold	: Note: No data available
pH	: Note: neutral
Melting point/range	: -45 °C
Boiling point/boiling range	: 130 - 132 °C at 1,013 hPa
Flash point	: 82 °F (28 °C)
Evaporation rate	: Note: No data available
Lower explosion limit	: 1.3 %(V)
Upper explosion limit	: 11 %(V)
Vapor pressure	: 12 hPa at 20 °C(68 °F)
Vapor density	: Note: No data available
Density	: 1.107 - 1.109 g/cm3 at 20 °C
Water solubility	: Note: slightly soluble

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Solubility in other solvents	: Note: soluble
Partition coefficient: n-octanol/water	: log Pow: 2.84
Ignition temperature	: ca. 590 °C
Decomposition temperature	: Note: At normal pressure may be distilled without decomposition.
Viscosity, dynamic	: Note: No data available
Viscosity, kinematic	: Note: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 112.56 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: With oxidizing agents possible. Vapours may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	: Hydrogen chloride gas Carbon oxides

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SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50: > 2,000 mg/kg Species: Rat Method: OECD Test Guideline 401
Acute inhalation toxicity	: Note: Classification based on Annex VI of regulation 1272/2008/EC.
Acute dermal toxicity	: Note: Not classified due to data which are conclusive although insufficient for classification.
Skin irritation	: Species: Rabbit Result: Irritating to skin. Method: OECD Test Guideline 404
Eye irritation	: Species: Rabbit Result: slight irritation Method: OECD Test Guideline 405
Sensitisation	: Note: Not classified due to data which are conclusive although insufficient for classification.
Repeated dose toxicity	: Note: No data available
Genotoxicity in vitro	: Note: Not classified due to data which are conclusive although insufficient for classification.
Further information	: Note: Confirmed animal carcinogen with unknown relevance to humans.

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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : static test
LC50: 4.5 mg/l
Exposure time: 96 h
Species: Lepomis macrochirus (Bluegill sunfish)

: NOEC: 4.8 mg/l
Exposure time: 28 d
Species: Danio rerio (zebra fish)

Toxicity to daphnia and other aquatic invertebrates : Immobilization
EC50: 26 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 202

Toxicity to algae : IC50: 12.5 mg/l
Exposure time: 96 h
Species: Pseudokirchneriella subcapitata (green algae)

Toxicity to bacteria : EC50: 140 mg/l
Exposure time: 30 min
Species: activated sludge
Method: OECD 209

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.32 mg/l
Exposure time: 16 d
Species: Daphnia magna (Water flea)

Elimination information (persistence and degradability)

Biodegradability : Result: Not readily biodegradable.
Value: 15 %
Method: OECD Test Guideline 301F

Further information on ecology

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Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT UN/ID No. : UN 1134
Proper shipping name : CHLOROBENZENE
Class : 3
Packing group : III
Hazard Labels : 3

IATA UN/ID No. : UN 1134
Description of the goods : CHLOROBENZENE
Class : 3
Packaging group : III
Hazard Labels : 3
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355
Packing instruction (passenger aircraft) : Y344

IMDG UN/ID No. : UN 1134
Description of the goods : CHLOROBENZENE
Class : 3
Packaging group : III
Hazard Labels : 3
EmS Number : F-E, S-D
Marine pollutant : yes

SECTION 15. REGULATORY INFORMATION**Inventories**

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US. Toxic Substances
Control Act : On TSCA Inventory

Australia. Industrial
Chemicals Act (AIC), as
amended : On the inventory, or in compliance with the inventory

Canada. Canadian
Environmental Protection
Act (CEPA). Domestic
Substances List (DSL) : All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals
Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. Inventory of
Chemicals and Chemical
Substances (PICCS) : On the inventory, or in compliance with the inventory

China. Inventory of Existing
Chemical Substances
(IECSC) : On the inventory, or in compliance with the inventory

New Zealand. Inventory of
Chemicals (NZIoC), as
published by ERMA New
Zealand : On the inventory, or in compliance with the inventory

National regulatory information

US. EPA Emergency
Planning and Community
Right-To-Know Act
(EPCRA) SARA Title III
Section 302 Extremely
Hazardous Substance (40
CFR 355, Appendix A) : The following component(s) of this product is/are subject to
release reporting under 40 CFR 302 when release exceeds the
Reportable Quantity (RQ):

Reportable quantity: 100 lbs

: Chlorobenzene 108-90-7

SARA 302 Components : No chemicals in this material are subject to the reporting
requirements of SARA Title III, Section 302.

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SARA 313 Components	: The following components are subject to reporting levels established by SARA Title III, Section 313:	
	: Chlorobenzene	108-90-7
SARA 311/312 Hazards	: Fire Hazard Acute Health Hazard	
CERCLA Reportable Quantity	: 100 lbs	
California Prop. 65	: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.	
Massachusetts RTK	: Chlorobenzene	108-90-7
New Jersey RTK	: Chlorobenzene	108-90-7
Pennsylvania RTK	: Chlorobenzene	108-90-7

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 2*	3
Flammability	: 3	3
Physical Hazard	: 0	
Instability	:	0

* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

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

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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. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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