

Safety Data Sheet

4-CHLOROTOLUENE

Safety Data Sheet dated 29/12/2022 version 3



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

1.1. Product identifier

Identification of the substance:

Trade name: 4-CHLOROTOLUENE
Chemical name: 4-chlorotoluene
CAS number: 106-43-4
EC number: 203-397-0
Index number: 602-040-00-X
Registration Number 01-2119458859-16-0001
Substance registered as Isolated intermediate under SCC (Art.18).

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: USE AS AN INTERMEDIATE

Uses advised against: N.A.

1.3. Details of the supplier of the safety data sheet

Company:

HydroChem Italia S.R.L.
Via Mario Massari, 30/32, 28886 Pieve Vergonte VB/ITALY
Phone +39 0324 8601
Fax +39 0324 86694
Homepage www.hydrochemitalia.it
Competent person responsible for the safety data sheet: sds@hydrochemitalia.it

1.4. Emergency telephone number

Company: +39 0324 8601 Mo-Fr 8:00-17:00
Malta: 112

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Flam. Liq. 3 Flammable liquid and vapour.
Acute Tox. 4 Harmful if inhaled.
Skin Sens. 1B May cause an allergic skin reaction.
Aquatic Chronic 2 Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Pictograms and Signal Words



Warning

Hazard statements

H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment.

P280	Wear protective gloves/clothing and eye/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P312	Call a POISON CENTER or a doctor if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with applicable regulations.

Contains

4-chlorotoluene

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

This substance has no PBT, vPvB or endocrine disrupting properties

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance Identifications:	4-chlorotoluene
CAS number:	106-43-4
EC number:	203-397-0
Index number:	602-040-00-X
Registration Number	01-2119458859-16-0001

3.2. Mixtures

N.A.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Wash with plenty of water and soap.

In case of persistent skin irritation consult a doctor.

In case of eyes contact:

Irrigate eyes with copious amounts of water for at least 10-15 min, holding eyelids apart to ensure thorough rinsing

Wash immediately with water.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and hazard labelling.

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

Remove casualty to fresh air and keep warm and at rest.

If breathing is irregular or stopped, administer artificial respiration.

If breathing stops, apply artificial respiration.

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

N.A.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam, extinguishing powder, sprinkling water jet, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

full jet of water.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Hazardous combustion products:

Hydrochloric acid (HCl)

Chlorine

5.3. Advice for firefighters

Wear suitable protective clothing (helmet, protective clothings, goggles, fire resistant gloves, boots) and protect respiratory organs (self contained breathing apparatus).

Use suitable breathing apparatus .

Cool the containers exposed to the fire with water.

Move undamaged containers from immediate hazard area if it can be done safely.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Dispose of the collected material in accordance with the current regulations.

Wash with plenty of water.

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Always keep in a well ventilated place.

Incompatible materials:

Keep away from alkalis.

Keep away from oxidizing agents

Keep away from water or from damp surroundings.

Instructions as regards storage premises:

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from open flames, sparks and heat sources.

Cool and adequately ventilated.

Packaging materials:

Keep containers tightly closed and properly labelled.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

in case the substance is transported to other sites for further processing, the substance should be handled at these sites under the Strictly Controlled Conditions as specified in REACH regulation Article 18(4).

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

Individual protection measures:

Personal protective equipment selections vary based on potential exposure conditions and working conditions.

The final choice of protective equipment will depend upon a risk assessment.

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Please see both sections 5 and 6 for information about personal protective equipment to be worn in an emergency (e.g.: fire or unintentional release of the substance).

Eye protection:

Safety glasses (Conforming to UNI EN 166)

Protection for skin:

Chemical protection clothing.

Protection for hands:

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.

Glove suitability and breakthrough time will differ depending on the specific use conditions.

Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions.

Wear suitable gloves tested to EN374.

Suitable gloves type:

Fluorocarbon rubber (Viton) (Recommended thickness of the material: 0,7 mm; Permeation time: > 480 min)

PVA (polyvinyl alcohol), layer thickness 0,4 mm EN ISO 374-1:2016 Type A

Respiratory protection:

Depending on the potential for exposure, select respiratory protective equipment suitable for the specific conditions of use and in compliance with current legislation.

Respiratory protection mask in the event of high concentrations.

Short term: filter apparatus, filter A. (DIN EN 14387)

Thermal Hazards:

No information available.

Environmental exposure controls:

Comply with the applicable environmental regulations limiting discharge to air, water and soil.

Hygienic and Technical measures

The substance/product is registered with strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH Regulation) and must therefore be handled as such.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid

Color: Colourless

Odour: Characteristic

Odour threshold: (Data not available.)

pH: N.A. (Data not available.)

Kinematic viscosity: N.A. 0.8 mPa.s (20°C)

Melting point / freezing point: 7,5 °C

Initial boiling point and boiling range: 162 °C

Flash point: 49 °C

Upper/lower flammability or explosive limits: 0.7-12.2 vol. %

Vapour density: 4.3

Vapour pressure: 0,379 (25°C)

Relative density: 1.06-1.07

Solubility in water: 0,1 g/l (20°C)

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): 3.33

Auto-ignition temperature: 570 °C ca.

Decomposition temperature: N.A.

Flammability: Flammable

Volatile Organic compounds - VOCs = N.A.

Particle characteristics:

Particle size: Not Relevant (Does not apply to liquid.)

9.2. Other information

Miscibility: N.A.

Conductivity: N.A.

Explosive properties: (Non explosive)

Oxidizing properties: (Non oxidising)

Evaporation rate: N.A.

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Reactions with oxidants.

Reactions with alkaline metals.

10.4. Conditions to avoid

Heat

Keep away from heat and direct sunlight.

10.5. Incompatible materials

See section 7.

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological Information of the Substance

a) acute toxicity	The product is classified: Acute Tox. 4(H332) LD50 Skin Rat > 5000 mg/kg bw LD50 Oral Rat 2273 mg/kg bw - OECD 401 LC50 Inhalation Rat 21.5 mg/l 5h
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met Skin Irritant Rabbit Positive - Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified Based on available data, the classification criteria are not met Eye Irritant Rabbit Positive - Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	The product is classified: Skin Sens. 1B(H317) Skin Sensitization Guinea pig Positive
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met Mutagenesis Negative
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

11.2. Information on other hazards

Endocrine disrupting properties:

This substance has no endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

Toxic to aquatic life with long lasting effects.

List of Eco-Toxicological properties of the product

The product is classified: Aquatic Chronic 2(H411)

a) Aquatic acute toxicity : EC50 Fish 5.92 mg/l - 14d

a) Aquatic acute toxicity : EC50 Daphnia 1.7 mg/l 48h

12.2. Persistence and degradability

Persistence/Degradability:

Not biodegradable.

12.3. Bioaccumulative potential

Test

Value Notes:

BCF - Bioconcentration factor 73.13 calculated with BCFWIN

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

This substance has no PBT, vPvB or endocrine disrupting properties

12.6. Endocrine disrupting properties

This substance has no endocrine disrupting properties

12.7. Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number

2238

14.2. UN proper shipping name

ADR-Shipping Name: CHLOROTOLUENES

IATA-Technical name: CHLOROTOLUENES

IMDG-Technical name: CHLOROTOLUENES

14.3. Transport hazard class(es)

ADR-Class: 3

IATA-Class: 3

IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. Environmental hazards

Marine pollutant: Yes

Environmental Pollutant: Yes

IMDG-EMS: F-E, S-D

14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR-Label: 3

ADR - Hazard identification number: 30

ADR-Special Provisions: -

ADR-Transport category (Tunnel restriction code): 3 (D/E)

Air (IATA):

IATA-Passenger Aircraft: 355
IATA-Cargo Aircraft: 366
IATA-Label: 3
IATA-Subsidiary hazards: -
IATA-Erg: 3L
IATA-Special Provisions: -

Sea (IMDG):

IMDG-Stowage Code: Category A
IMDG-Stowage Note: SGG10
IMDG-Subsidiary hazards: -
IMDG-Special Provisions: -

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EU) n. 2020/878

Regulation (EC) n. 1907/2006 (REACH) and subsequent amendments

Regulation (EC) n. 1272/2008 (CLP) and subsequent amendments

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3, 40

Restrictions related to the substances contained: None.

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
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Product belongs to category: E2	200	500
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Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

Where applicable, refer to the following regulatory provisions :

German Water Hazard Class.

Class 2: hazardous for water.

SVHC Substances:

No data available

15.2. Chemical safety assessment

Chemical safety assessment not required.

No Chemical Safety Assessment has been carried out for the substance.

SECTION 16: Other information

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: KAFH
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/D: Not defined/ Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

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