

# Safety Data Sheet

## 4-CHLOROTOLUENE



Safety Data Sheet dated 8/4/2020, version 1

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

#### 1.1. Product identifier

Trade name: 4-CHLOROTOLUENE  
Chemical name: 4-chlorotoluene  
CAS number: 106-43-4  
EC number: 203-397-0  
Index number: 602-040-00-X  
REACH 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

#### 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](http://www.hydrochemitalia.it)

Competent person responsible for the safety data sheet: [sds@hydrochemitalia.it](mailto:sds@hydrochemitalia.it)

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

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

Adverse physicochemical, human health and environmental effects:

No other hazards

#### 2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

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

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves.  
P312 Call a POISON CENTER/doctor/... if you feel unwell.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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P501 Dispose of contents/container in accordance with applicable regulations.  
Special Provisions:  
None  
Special provisions according to Annex XVII of REACH and subsequent amendments:  
None

2.3. Other hazards  
vPvB Substances: None - PBT Substances: None  
Other Hazards:  
No other hazards

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### SECTION 3: Composition/information on ingredients

3.1. Substances

Trade name:	4-CHLOROTOLUENE
Chemical name:	4-chlorotoluene
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EC number:	203-397-0
REACH number:	01-2119458859-16-0001

3.2. Mixtures  
N.A.

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### SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

In case of persistent skin irritation consult a doctor.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

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

If breathing is irregular or stopped, administer artificial respiration.

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

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

None

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).

Treatment:

None

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### SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam, dry powder, water spray jet, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Hazardous combustion products:

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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.

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

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

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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

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

Provide adequate ventilation.

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.

Retain contaminated washing water and dispose it.

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

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

### 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.

### 6.4. Reference to other sections

See also section 8 and 13

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## 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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.

Do not smoke while working.

Do not eat or drink while working.

### 7.2. Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

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

Keep away from food, drink and feed.

Incompatible materials:

Keep away from water or from damp surroundings.

Keep away from oxidizing agents

Keep away from alkalis.

Instructions as regards storage premises:

Cool and adequately ventilated.

### 7.3. Specific end use(s)

in case the substance is transported to other sites for further processing, the substance should

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be handled at these sites under the Strictly Controlled Conditions as specified in REACH regulation Article 18(4).

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No occupational exposure limit available

#### DNEL Exposure Limit Values

N.A.

#### PNEC Exposure Limit Values

N.A.

#### 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 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: 0.4 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.

##### Appropriate engineering controls:

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.

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Appearance and colour: Liquid, colourless

Odour: Aromatic

Odour threshold: N.A.

Melting point / freezing point: 7,6 °C

Initial boiling point and boiling range: 161-163 °C

Solid/gas flammability: N.A.

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Upper/lower flammability or explosive limits:	0.7-12.2 vol. %
Vapour density:	4,3
Flash point:	49 ° C
Evaporation rate:	N.A.
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.
Viscosity:	0.8 mPa.s (20°C)
Explosive properties:	N.A.
Oxidizing properties:	N.A.
9.2. Other information	
Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

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#### 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.

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#### SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
  - Toxicological information of the substance:
    - 4-chlorotoluene - CAS: 106-43-4
    - a) acute toxicity
      - The product is classified: Acute Tox. 4 H332
      - Test: LD50 - Route: Skin - Species: Rat > 5000 mg/kg b.w.
      - Test: LD50 - Route: Oral - Species: Rat 2273 mg/kg b.w.
      - Test: LC50 - Route: Inhalation - Species: Rat 21.5 mg/l - Duration: 5h
    - b) skin corrosion/irritation
      - Not classified
      - Test: Skin Irritant - Species: Rabbit Positive - Based on available data, the classification criteria are not met
    - c) serious eye damage/irritation
      - Not classified
      - Test: Eye Irritant - Species: 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
      - Test: Skin Sensitization - Species: Guinea pig Positive
    - e) germ cell mutagenicity

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- Not classified  
Based on available data, the classification criteria are not met  
Test: 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

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### SECTION 12: Ecological information

- 12.1. Toxicity  
Adopt good working practices, so that the product is not released into the environment.  
4-chlorotoluene - CAS: 106-43-4  
The product is classified: Aquatic Chronic 2 - H411  
a) Aquatic acute toxicity:  
Endpoint: EC50 - Species: Fish 5.92 mg/l - Notes: 14d  
Endpoint: EC50 - Species: Daphnia 1.7 mg/l - Duration h: 48
- 12.2. Persistence and degradability  
4-chlorotoluene - CAS: 106-43-4  
Biodegradability: Not biodegradable.
- 12.3. Bioaccumulative potential  
4-chlorotoluene - CAS: 106-43-4  
Test: BCF - Bioconcentration factor 73.13 - Notes: calculated with BCFWIN
- 12.4. Mobility in soil  
N.A.
- 12.5. Results of PBT and vPvB assessment  
vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects  
None

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### 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.

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### SECTION 14: Transport information



- 14.1. UN number  
ADR-UN Number: 2238  
IATA-UN Number: 2238

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IMDG-UN Number:	2238
14.2. UN proper shipping name	
ADR-Shipping Name:	CHLOROTOLUENES
IATA-Shipping Name:	CHLOROTOLUENES
IMDG-Shipping Name:	CHLOROTOLUENES
14.3. Transport hazard class(es)	
ADR-Class:	3
ADR - Hazard identification number:	30
IATA-Class:	3
IATA-Label:	3
IMDG-Class:	3
14.4. Packing group	
ADR-Packing Group:	III
IATA-Packing group:	III
IMDG-Packing group:	III
14.5. Environmental hazards	
ADR-Environmental Pollutant:	Yes
IMDG-Marine pollutant:	Marine Pollutant
14.6. Special precautions for user	
ADR-Subsidiary hazards:	-
ADR-S.P.:	-
ADR-Transport category (Tunnel restriction code):	3 (D/E)
IATA-Passenger Aircraft:	355
IATA-Subsidiary hazards:	-
IATA-Cargo Aircraft:	366
IATA-S.P.:	-
IATA-ERG:	3L
IMDG-EmS:	F-E , S-D
IMDG-Subsidiary hazards:	-
IMDG-Stowage and handling:	Category A
IMDG-Segregation:	SGG10
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
N.A.	

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#### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Dir. 98/24/EC (Risks related to chemical agents at work)
  - Dir. 2000/39/EC (Occupational exposure limit values)
  - Regulation (EC) n. 1907/2006 (REACH)
  - Regulation (EC) n. 1272/2008 (CLP)
  - Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
  - Regulation (EU) 2015/830
  - Regulation (EU) n. 286/2011 (ATP 2 CLP)
  - Regulation (EU) n. 618/2012 (ATP 3 CLP)
  - Regulation (EU) n. 487/2013 (ATP 4 CLP)
  - Regulation (EU) n. 944/2013 (ATP 5 CLP)
  - Regulation (EU) n. 605/2014 (ATP 6 CLP)
  - Regulation (EU) n. 2015/1221 (ATP 7 CLP)
  - Regulation (EU) n. 2016/918 (ATP 8 CLP)
  - Regulation (EU) n. 2016/1179 (ATP 9 CLP)
  - Regulation (EU) n. 2017/776 (ATP 10 CLP)
  - Regulation (EU) n. 2018/699 (ATP 11 CLP)
- 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:
    - Restriction 3
    - Restriction 40

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Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

1999/13/EC (VOC directive)

Dir. 2004/42/EC (VOC directive)

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

N.A.

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for the substance.

Chemical safety assessment not required.

#### SECTION 16: Other information

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Skin Sens. 1B	3.4.2/1B	Skin Sensitisation, Category 1B
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2

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.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization"



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	(ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
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.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.