Danger

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

Ref. n° : 105 087 / 105 323 / 105 344

Trade name : Trichlorométhane

Company identification : JEULIN
T: +33 2 32 29 40 50 - F: +33 2 32 29 43 99
468, Rue Jacques Monod - CS 21900
27019 EVREUX CEDEX - France
e-mail : support@jeulin.fr

Emergency phone nr : +33 1 45 42 59 59

Use : laboratory use

SECTION 2 Hazards identification

Classification of the substance or mixture

Hazard Class and Category Code Regulation EC 1272/2008 (CLP)

• Health hazards : Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4)
Acute toxicity, Inhalation - Category 3 - Danger
Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2)
Eye irritation - Category 2 - Warning (CLP : Eye Irrit. 2)
Carcinogenicity - Category 2 - Warning (CLP : Carc. 2)
Reproductive toxicity - Unborn Child - Category 2 - Warning (CLP : Repr. 2)
Specific Target Organ Toxicity - Repeated exposure - Category 1 - Danger (CLP : STOT RE 1)

Label elements

Labelling Regulation EC 1272/2008 (CLP) :

• Hazard pictograms

• Signal words : Danger

• Hazard statements : H331 : Toxic if inhaled.
H351 : Suspected of causing cancer.
H361d : Suspected of the unborn child.
H302 : Harmful if swallowed.
H319 : Causes serious eye irritation.
H315 : Causes skin irritation.
H372 : Causes damage to organs through prolonged or repeated exposure.

• Precautionary statements

- General : P102 : Keep out of reach of children.

- Prevention : P280 : Wear protective gloves/protective clothing/eye protection/face protection.
P260 : Do not breathe dust/fume/gas/mist/vapours/spray.

- Response : P305+P351+P338+P310+P321 : IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. Specific treatment.
P301+P312+P330 : IF SWALLOWED : Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

SECTION 3 Composition/information on ingredients

This product is considered to be hazardous and contains hazardous components.

Substance / Preparation

Substance name		Value(s)	CAS nr	EC	EC index	REACH	CERTIFICATE
Trichloromethane	:	<= 100 %	67-66-3	200-663-8	602-006-00-4	----	Not classified. (DSD/DPD) --- Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye irrit 2 (H319) Acute Tox. 3 (H331) Carc. 2 (H351) STOT RE 1 (H372) Repr. 2 (H361d)

SECTION 4. First aid measures

- Inhalation : If breathing is difficult, give oxygen. If you feel unwell, seek medical advice. Assure fresh air breathing. If not breathing, give artificial respiration.

- Skin contact : Wash skin thoroughly with mild soap and water. Remove contaminated clothing and shoes.

- Eye contact : Rinse immediately with plenty of water.
Contact ophthalmologist immediately.

- Ingestion : **Do not induce vomiting.**

: If swallowed, rinse mouth with water (only if the person is conscious).

: **Seek medical attention immediately.**

SECTION 5. Fire-fighting measures

Extinguishing media

- Suitable : Carbon dioxide. Foam. Powder.

Special exposure hazards : Slightly combustible.
Under fire conditions, highly hazardous fumes will be present. Thermal decomposition generates : Phosgene. Hydrogen chloride. Carbon monoxide. Chlorine. Tetrachloroethylene

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.

Special procedures : Knock down vapour cloud with water spray or other appropriate solution.
Avoid (reject) fire-fighting water to enter environment.

SECTION 6. Accidental release measures

Environmental precautions : Prevent entry to sewers and public waters.

After spillage and/or leakage : Clean up any spills as soon as possible, using an absorbent material to collect it. (ex: Vermiculite JEULIN réf. 150 039)
Avoid release to the environment. Refer to special instructions and/or Safety data sheets.

SECTION 7. Handling and storage

Precautions in handling and storage : Provide good ventilation in process area to prevent formation of vapour.
Do not store in aluminium, galvanized or other corrodable containers.

Handling : Wear suitable protective clothing.
Avoid all unnecessary exposure.
Do not breathe gas, fumes, vapour or spray.

Storage : Close container tightly after use.
Store in dry, cool, well-ventilated area.
Keep away from heat. (+15°C / +25°C)

SECTION 8. Exposure controls/personal protection

Personal protection : Avoid all unnecessary exposure.

- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.

- Hand protection : Wear suitable gloves resistant to chemical penetration.

- Skin protection : Wear suitable protective clothing.

- Eye protection : Chemical goggles or safety glasses.

- Others : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Provide good ventilation in process area to prevent formation of vapour.

Exposure controls

- France : VLE : 50 ppm (250 mg/m3)
VME : 2 ppm (10 mg/m3)

SECTION 9. Physical and chemical properties

Chemical name : Trichlorométhane, chloroforme.

Physical state : Liquid.

Colour : Colourless.

Odour : Ethereal.

pH value : No data available.

Molecular weight : 119,4 g/Mol

Melting point [°C] : -63,5

Initial boiling point [°C] : (1013 hPa) : 61,3

Density : (20 °C) : 1,480

Relative vapour density (air=1) : 4,12

Solubility in : Water. (20 °C) : 8 g/l
Organic solvents. (20 °C) : miscible

Flash point [°C] : No data available.

Auto-ignition temperature [°C] : No data available.

Explosion limits

Explosion limits - lower [%] : No data available.

Explosion limits - upper [%] : No data available.

Evaporation rate (ether=1) : 2,5

SECTION 10. Stability and reactivity

Conditions to avoid : Heat sensitive.
Light sensitive.

Materials to avoid : Strong bases. Strong oxidizing agents (peroxides, chromates, dichromates, chlorates, perchlorates, permanganates, nitric acid, concentrated nitric acid, concentrated sulphuric acid...) Oxygen. Cetones. Alkali metals: Sodium (Na), Potassium (K). Alkaline-earth metals: Magnesium (Mg), Calcium (Ca). Aluminium (Al). Finely divided metals. Nitrogen oxides.

Hazardous reactions : When exposed to heat, may decompose liberating hazardous gases.

Hazardous decomposition products : Chlorine. Tetrachloroethylene Hydrogen chloride. Phosgene. Carbon monoxide.

SECTION 11. Toxicological information

Acute toxicity

- Inhalation	:	Respiratory tract irritation. Toxic by inhalation. Narcosis. Drunkenness. Unconsciousness.
- Dermal	:	Skin irritation. This material or its emissions may defat skin, cause contact dermatitis, or aggravate existing skin disease.
- Ocular	:	Irritating to eyes. Direct contact may result in corneal injury.
- Ingestion	:	May result in aspiration into the lungs, causing pneumonia. After ingestion or inhalation may occur damage to the liver and kidneys.
- Other	:	May cause respiratory failure. Unconsciousness. Collapse. Coma. Anaesthetic at a concentration of 1 to 2 %. Other toxic properties can not be excluded.
Rat oral LD50	:	1500 mg/kg - Inhal rat CL50 : 6 000 - 10 000 mg/m3/6h
Dermal irritation (rabbit)	:	Irritating to skin.
Eyes irritation (rabbit)	:	Irritating to eyes.
Mucous membrane irritation (rabbit)	:	No data available.
Chronic toxicity	:	La consommation anormale de produits contenant du trichlorométhane a entraîné une atteinte du système ner veux central (état psychotique) et périphérique (polynévrite) ainsi qu'une atteinte hépatique. L'exposition professionnelle peut se traduire par l'apparition de signes neurologiques (céphalées, vertiges, somnolence), irritatifs (peau et muqueuses) et parfois d'anomalies hépato-rénales. Le contact prolongé avec le liquide peut occasionner des dermatoses.
Carcinogenicity	:	Cancer suspected agent. Les essais sur la souris et le rat ont montré que le trichlorométhane provoquait des tumeurs sur de nombreux organes. Carcinogen category : 2 B : Cancérigène possible pour l'homme IARC (International Agency for Research on Cancer). Overall Evaluation of Carinogenicity to Humans: Goupe 2B: Possibly Carcinogenic to Humans.
Mutagenicity	:	Mutagenicity tests are negative.
Reproductive toxicity	:	May cause harm to the unborn child. This material or its emissions may affect pregnancy and/ or foetus development. Pregnant women are advised to avoid any contact with this product.
Other toxicoligical information	:	Other toxic properties can not be excluded. Observe all precautions for handling chemicals. For more toxicilogical informations, read the INRS data sheet # : 82.

SECTION 12. Ecological information

Ecological effects information	:	Avoid release to the environment. Poissons : P. Promelas CL50 : 71 mg/l/96h Daphnies : Daphnia magna CE 50 : 79 mg/l/48h. Algues : Sc. quadricauda CI 50 :1100 mg/l/8d Bacteries : Ps Putida CE 5 : 125 mg/l/16h. Protozoaires : E.Sculatum CE5 :> 6560 mg/L/72h
Persistence and degradability	:	Minimally biodegradable.
Bioaccumulative potential	:	Harmful to aquatic organisms. log P (o / w) = 1 - 3 : No remarkable bioaccumulation of this product is to be anticipated.
Information on elimination	:	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

SECTION 13. Disposal considerations

Disposal : Dispose of this material and its container at hazardous or special waste collection point.
Containers, or internal liners coming from a container, having contained this product are also considered as hazardous wastes.
Dispose in a safe manner in accordance with local/national regulations.
Do not empty into drains.

Waste-disposal procedures : Refer to the MSDS before handling or disposing.

SECTION 14. Transport information

- Proper shipping name : 1888 CHLOROFORME, 6.1, III, ADR
- UN No. : 1888
- H.I. nr : : 60

Land transport

- ADR/RID : Group : III
Class : 6.1

Sea transport

- GGVE/GGVSee class
- IMO-IMDG code : UN 1888 Chloroforme
- Class : 6.1
- Packing group : III

Air transport

- ICAO/IATA : UN 1888 Chloroform
- IATA - Class or division : 6.1
IATA Packing group : III

SECTION 15. Regulatory information

Other : None.

SECTION 16. Other information

Further information

The contents and format of this MSDS are in accordance with Regulation (EC) N°1907/2006.

DISCLAIMER OF LIABILITY The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

End of document