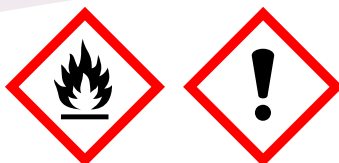


**2-Méthylbutan-2-ol****L-F-T****Danger****SECTION 1. Identification of the substance/mixture and of the company/undertaking**

Ref. n° : 102 151  
Trade name : Méthyl-2-butan-2-ol  
Company identification : JEULIN  
T: 02 32 29 40 50 - F: 02 32 29 43 99  
Z.I. N°1 - NETREVILLE BP1900  
27019 EVREUX France  
e-mail : support@jeulin.fr  
Emergency phone nr : 01 45 42 59 59  
Use : laboratory use

**SECTION 2. Hazards identification**

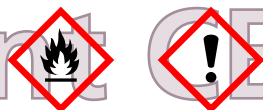
Classification EC 67/548 or EC 1999/45 : F; R11  
Xn; R20  
Xi; R37/38

**Globally Harmonized System of Classification and Labelling of Chemicals (GHS)****Hazard Class and Category Code**

- Physical hazards : Flammable liquids - Category 2 - Danger (CLP : Flam. Liq. 2)
- Health hazards : Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4)  
Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2)  
Specific Target Organ Toxicity - Single exposure - Respiratory tract irritation - Category 3 - Warning (CLP : STOT SE 3)

**Label elements**

## • Hazard pictograms



- Signal words : Danger
- Hazard statements : H225 : Highly flammable liquid and vapour.  
H315 : Causes skin irritation.  
H332 : Harmful if inhaled.  
H335 : May cause respiratory irritation.
- Precautionary statements
  - General : P102 : Keep out of reach of children.
  - Prevention : P280 : Wear protective gloves/protective clothing/eye protection/face protection. P210 : Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P261 : Avoid breathing dust/fume/gas/mist/vapours/spray.
  - Response : P304+P340+P312 : IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. P302+P352 : IF ON SKIN: Wash with plenty of soap and water.



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### SECTION 3. Composition/information on ingredients

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

Substance name	Value(s)	CAS nr	EC	EC index	REACH	CERTIFICATE
2-méthylbutan-2-ol	: 100 ca %	75-85-4	200-908-9	603-007-00-2	----	F; R11 Xn; R20 Xi; R37/38 ----- Flam. Liq. 2 (H225) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) STOT SE 3 (H335)

### SECTION 4. First aid measures

- Inhalation : Provide oxygen and/or ventilation assistance, if needed.  
If breathing is difficult, give oxygen.  
If you feel unwell, seek medical advice.  
Assure fresh air breathing.
- Skin contact : Remove contaminated clothing and shoes.  
Wash skin thoroughly with mild soap and water.
- Eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Contact ophthalmologist immediately.
- Ingestion : **If swallowed, rinse mouth with water (only if the person is conscious).**  
: **Seek medical attention immediately.**

### SECTION 5. Fire-fighting measures

- Prevention : Take precautionary measures against static discharges.  
No naked lights. No smoking.  
Keep away from heat.
- Extinguishing media  
- Suitable : Powder.  
Foam.  
Carbon dioxide.
- Special exposure hazards : Under fire conditions, hazardous fumes will be present.  
Vapour mixes readily with air, forming explosive mixtures.  
Heavier than air, vapours may travel long distances along ground, ignite and flash back to source.
- Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.
- Special procedures : Use water spray or fog for cooling exposed containers.  
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, absorbant pour liquides JEULIN réf. 150 027)  
Flush/dilute residue with water.
- For emergency responders : Wear recommended personal protective equipment.  
Evacuate and limit access.
- Technical measures : Eliminate every possible source of ignition.

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e-mail : support@jeulin.fr**Antipoison Center - tel : 01 45 42 59 59**



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### SECTION 7. Handling and storage

- Precautions in handling and storage** : Both local exhaust and good general room ventilation must be provided not only to control exposure but also to prevent formation of flammable mixtures.  
Use special care to avoid static electric charges.
- Handling** : Do not breathe gas, fumes, vapour or spray.  
Wear suitable protective clothing.  
Avoid all unnecessary exposure.
- Storage** : Store in dry, cool, well-ventilated area.  
Close container tightly after use.  
Keep away from heat. (+15°C / +25°C)
- Storage - away from** : Oxidizing matériel.  
Oxidizing.

### 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.

### SECTION 9. Physical and chemical properties

- Chemical name** : Méthyl-2-butan-2-ol, alcool tert-amylique, tert-pentanol.
- Physical state** : Liquid.
- Colour** : Colourless.
- Odour** : Characteristic.
- pH value** : (20 °C) : 6,0 (118 g/l à 20°C)
- Molecular weight** : 88,15
- Melting point [°C]** : -12
- Initial boiling point [°C]** : 102
- Density** : (20 °C) : 0,805
- Relative vapour density (air=1)** : 3,04
- Viscosity at 25°C [mPa.s]** : 3,7
- Solubility in** : Organic solvents. : soluble.  
Water. (20 °C) : 118 g/L
- Flash point [°C]** : 20
- Auto-ignition temperature [°C]** : 437
- Explosion limits**
- Explosion limits - lower [%]** : 1,2
- Explosion limits - upper [%]** : 9



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### SECTION 10. Stability and reactivity

- Conditions to avoid** : Heat.  
Sparks.  
Open flame.
- Materials to avoid** : Strong oxidizers.  
Oxidizing.  
Métaux alcalins  
Métaux alcalinoterreux
- Hazardous reactions** : Combustible.  
Fire/explosion hazard.
- Hazardous decomposition products** : Carbon monoxide.
- Hazardous properties** : Vapour mixes readily with air, forming explosive mixtures.

### SECTION 11. Toxicological information

- Acute toxicity**
- Inhalation : Harmful by inhalation. Peut causer des difficultés respiratoires (toux, dyspnée...).  
Respiratory tract irritation.
  - Dermal : Repeated or prolonged skin contact may cause dermatitis and defatting.  
May be harmful if absorbed through the skin. Irritant.
  - Ocular : Irritation.  
Risk of damage to eyes.
  - Ingestion : Ingestion may cause nausea, vomiting and diarrhea.
  - Other : This material or its emissions may affect the nervous system. (Effets narcotiques, céphalées, vertiges, asthénie, somnolence, voire coma).
- Chronic toxicity** : Not expected to be toxic.
- Mutagenicity**
- Ames test : Mutagenicity tests are negative.
- Other toxicological information** : Other toxic properties can not be excluded. Observe all precautions for handling chemicals.  
For more toxicological informations, read the INRS data sheet # : 206.

### SECTION 12. Ecological information

- Ecological effects information** : Algues : *Desmodesmus subspicatus* : CE50 : > 500 mg/l/72h.  
Daphnies : *Daphnia magna* : CE50 : 540 mg/l/48h.  
Poissons : *Leuciscus idus* : CL50 : 2430 mg/l/48h  
Avoid release to the environment.
- Bioaccumulative potential** : Log P (o / w) <1: No risk of bioaccumulation predicted.
- 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** : Containers, or internal liners coming from a container, having contained this product are also considered as hazardous wastes.  
Do not re-use empty container.  
Dispose in a safe manner in accordance with local/national regulations.  
Avoid release to the environment.
- Waste-disposal procedures** : Refer to the MSDS before handling or disposing.

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**2-Méthylbutan-2-ol****L-F-T**

## SECTION 14. Transport information

- Proper shipping name : 1105 PENTANOLS, 3, II, ADR
- UN No. : 1105
- H.I. nr : 33

### Land transport

- ADR/RID : Class : 3  
Group : II

### Sea transport

- GGVE/GGVSee class
- IMO-IMDG code : UN 1105 Pentanols
- Class : 3
- Packing group : II

### Air transport

- ICAO/IATA : UN 1105 Pentanols
- IATA - Class or division : 3
- IATA Packing group : II

## SECTION 15. Regulatory information

- Other : None.

## SECTION 16. Other information

- R Phrase(s) : R11 : Highly flammable.  
R20 : Harmful by inhalation.  
R37/38 : Irritating to respiratory system and skin.

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

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