

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Product name : TRS 4004

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : adhesives
Function or use category : Adhesives, binding agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Comercial Química Massó, S.A. (Česká Republika)
Baarova 1542/48
140 00 Praha 4 - CESHÁ REPUBLIKA
T +420 241 006 571 - F +420 241 481 798
msds.support@cqmasso.com

1.4. Emergency telephone number

Emergency number : 704 100 087 (España)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

| | |
|--|------|
| Flammable liquids, Category 2 | H225 |
| Skin corrosion/irritation, Category 2 | H315 |
| Serious eye damage/eye irritation, Category 2 | H319 |
| Specific target organ toxicity — Single exposure, Category 3, Narcosis | H336 |
| Aspiration hazard, Category 1 | H304 |
| Hazardous to the aquatic environment — Acute Hazard, Category 1 | H400 |
| Hazardous to the aquatic environment — Chronic Hazard, Category 1 | H410 |

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]** Extra labelling to display Extra classification(s) to display

Hazard pictograms (CLP) :



Signal word (CLP) :

: Danger

Hazardous ingredients :

: Ethyl acetate; zinc oxide; rosin; colophony; cyclohexane

Hazard statements (CLP) :

: H225 - Highly flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways

| | |
|--------------------------------|---|
| Precautionary statements (CLP) | H315 - Causes skin irritation H319 - Causes serious eye irritation H336 - May cause drowsiness or dizziness H410 - Very toxic to aquatic life with long lasting effects P280 - Wear protective gloves, protective clothing, eye protection P273 - Avoid release to the environment P261 - Avoid breathing spray, vapours, mist, dust P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P403+P233 - Store in a well-ventilated place. Keep container tightly closed |
| EUH-statements | EUH066 - Repeated exposure may cause skin dryness or cracking EUH208 - Contains rosin; colophony(8050-09-7). May produce an allergic reaction |
| PPP safety precautions | : |

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|------------------|--|----------|---|
| Ethyl acetate | (CAS-No.) 141-78-6 (EC-No.) 205-500-4 (EC Index-No.) 607-022-00-5 | 50 - 100 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 |
| cyclohexane | (CAS-No.) 110-82-7 (EC-No.) 203-806-2 (EC Index-No.) 601-017-00-1 | 25 - 50 | Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| zinc oxide | (CAS-No.) 1314-13-2 (EC-No.) 215-222-5 (EC Index-No.) 030-013-00-7 | 1 - 5 | Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| rosin; colophony | (CAS-No.) 8050-09-7 (EC-No.) 232-475-7 (EC Index-No.) 650-015-00-7 | 0,1 - 1 | Skin Sens. 1, H317 |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|---|
| First-aid measures general | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. |
| First-aid measures after skin contact | : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). Wash contaminated clothing before reuse. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. |

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

| | |
|------------------------------------|---|
| Symptoms/effects after inhalation | : May cause an allergic skin reaction. May cause drowsiness or dizziness. |
| Symptoms/effects after eye contact | : Causes serious eye irritation. |

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapours/spray.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Use only non-sparking tools. Use only outdoors or in a well-ventilated area.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep in fireproof place. Keep container tightly closed.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

Storage temperature : ≈ 10 - 25 °C

7.3. Specific end use(s)

See Heading 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Ethyl acetate (141-78-6) | | |
|-------------------------------------|---|--|
| France | Local name | Acétate d'éthyle |
| France | VME (mg/m ³) | 1400 mg/m ³ |
| France | VME (ppm) | 400 ppm |
| Germany | Local name | Ethylacetat |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 1500 mg/m ³ |
| Germany | TRGS 900 Occupational exposure limit value (ppm) | 400 ppm |
| Germany | Remark (TRGS 900) | DFG,Y |
| Portugal | Local name | Acetato de etilo |
| Portugal | OEL TWA (ppm) | 400 ppm |
| Spain | Local name | Acetato de etilo |
| Spain | VLA-ED (mg/m ³) | 1460 mg/m ³ |
| Spain | VLA-ED (ppm) | 400 ppm |
| United Kingdom | Local name | Ethyl acetate |
| United Kingdom | WEL TWA (ppm) | 200 ppm |
| United Kingdom | WEL STEL (ppm) | 400 ppm |
| Switzerland | Local name | Acétate d'éthyle |
| Switzerland | MAK (mg/m ³) | 1400 mg/m ³ |
| Switzerland | MAK (ppm) | 400 ppm |
| Switzerland | KZGW (mg/m ³) | 2800 mg/m ³ |
| Switzerland | KZGW (ppm) | 800 ppm |
| Switzerland | Remark (CH) | 4x15 |
| zinc oxide (1314-13-2) | | |
| Portugal | Local name | Óxido de zinco |
| Portugal | OEL TWA (mg/m ³) | 2 mg/m ³ |
| Portugal | OEL STEL (mg/m ³) | 10 mg/m ³ |
| Spain | Local name | Óxido de cinc |
| Spain | VLA-ED (mg/m ³) | 2 mg/m ³ Fracción respirable (2011) |
| Spain | VLA-EC (mg/m ³) | 10 mg/m ³ Fracción respirable (2011) |
| Spain | Notes | d (Véase UNE EN 481: Atmósferas en los puestos de trabajo. Definición de las fracciones por el tamaño de las partículas para la medición de aerosoles.) |
| Switzerland | Local name | Oxyde de zinc (fumée) |
| Switzerland | MAK (mg/m ³) | 3 mg/m ³ |
| Switzerland | KZGW (mg/m ³) | 3 mg/m ³ |
| Switzerland | Remark (CH) | 15 min |
| rosin; colophony (8050-09-7) | | |
| Spain | Local name | Resina núcleo de soldadura (Colofonia) |
| Spain | Notes | m (Los productos de descomposición térmica en el ambiente de la resina núcleo de soldadura, colo-fonia, tienen un marcado carácter sensibilizante, lo que aconseja reducir la exposición laboral a los mismos lo máximo posible.), Sen (Sensibilizante. Véase Apartado 6.) |
| United Kingdom | Local name | Rosin-based solder flux fume |
| United Kingdom | WEL TWA (mg/m ³) | 0,05 mg/m ³ |
| United Kingdom | WEL STEL (mg/m ³) | 0,15 mg/m ³ |
| United Kingdom | Remark (WEL) | Sen (Capable of causing occupational asthma. See paragraphs 53–56) |

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

| | |
|------------------------|--|
| Hand protection | : The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemical which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the gloves supplier. |
| Eye protection | : Integral goggles mounting (EN 166). |
| Respiratory protection | : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Combined filter for organic, inorganic gases, inorganic acids and alkaline / steam type ABEK (according to EN 14387) |
| Other information | : Do not eat, drink or smoke during use. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|--------------------------------------|
| Physical state | : Liquid |
| Colour | : dark grey. |
| Odour | : characteristic. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : < 0 °C |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Highly flammable liquid and vapour |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : immiscible and insoluble. |
| Log Pow | : No data available |
| Viscosity, kinematic | : > 2947,37 mm ² /s |
| Viscosity, dynamic | : ≈ 2800 mPa.s |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| Ethyl acetate (141-78-6) | |
|-----------------------------------|--------------------------------------|
| LC50 inhalation rat (ppm) | 2750 ppmv/4h |
| Skin corrosion/irritation | : Causes skin irritation. |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : May cause drowsiness or dizziness. |
| STOT-repeated exposure | : Not classified |

Aspiration hazard : May be fatal if swallowed and enters airways.

| TRS 4004 | |
|----------------------|------------------------------|
| Viscosity, kinematic | > 2947,37 mm ² /s |

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Toxic to aquatic life with long lasting effects.

| zinc oxide (1314-13-2) | |
|---------------------------------|----------|
| LC50 fishes | < 1 mg/l |
| EC50 48h - Daphnia magna [mg/l] | < 1 mg/l |
| ErC50 (algae) | < 1 mg/l |

12.2. Persistence and degradability

| TRS 4004 | |
|-------------------------------|---|
| Persistence and degradability | May cause long-term adverse effects in the environment. |

12.3. Bioaccumulative potential

| TRS 4004 | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information : Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR | IMDG | IATA |
|--|--|---|
| 14.1. UN number | | |
| 1133 | 1133 | 1133 |
| 14.2. UN proper shipping name | | |
| ADHESIVES | ADHESIVES | Adhesives |
| Transport document description | | |
| UN 1133 ADHESIVES (Ethyl acetate), 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS | UN 1133 ADHESIVES, 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS | UN 1133 Adhesives, 3, II, ENVIRONMENTALLY HAZARDOUS |
| 14.3. Transport hazard class(es) | | |
| 3 | 3 | 3 |
| | | |
| 14.4. Packing group | | |
| II | II | II |
| 14.5. Environmental hazards | | |
| Dangerous for the environment : Yes | Dangerous for the environment : Yes Marine pollutant : Yes | Dangerous for the environment : Yes |
| No supplementary information available | | |

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : F1
 Special provisions (ADR) : 640D
 Limited quantities (ADR) : 5I
 Excepted quantities (ADR) : E2
 Packing instructions (ADR) : P001, IBC02, R001
 Special packing provisions (ADR) : PP1
 Mixed packing provisions (ADR) : MP19
 Portable tank and bulk container instructions (ADR) : T4
 Portable tank and bulk container special provisions (ADR) : TP1, TP8
 Tank code (ADR) : LGBF
 Vehicle for tank carriage : FL
 Transport category (ADR) : 2
 Special provisions for carriage - Operation (ADR) : S2, S20
 Hazard identification number (Kemler No.) : 33
 Orange plates :



Tunnel restriction code (ADR) : D/E

- Transport by sea

Limited quantities (IMDG) : 5 L
 Excepted quantities (IMDG) : E2
 Packing instructions (IMDG) : P001
 Special packing provisions (IMDG) : PP1
 IBC packing instructions (IMDG) : IBC02

| | |
|------------------------------------|---|
| Tank instructions (IMDG) | : T4 |
| Tank special provisions (IMDG) | : TP1, TP8 |
| EmS-No. (Fire) | : F-E |
| EmS-No. (Spillage) | : S-D |
| Stowage category (IMDG) | : B |
| Properties and observations (IMDG) | : Adhesives are solutions of gums, resins, etc., usually volatile due to the solvents. Miscibility with water depends upon their composition. |

- Air transport

| | |
|--|--------|
| PCA Excepted quantities (IATA) | : E2 |
| PCA Limited quantities (IATA) | : Y341 |
| PCA limited quantity max net quantity (IATA) | : 1L |
| PCA packing instructions (IATA) | : 353 |
| PCA max net quantity (IATA) | : 5L |
| CAO packing instructions (IATA) | : 364 |
| CAO max net quantity (IATA) | : 60L |
| Special provisions (IATA) | : A3 |
| ERG code (IATA) | : 3L |

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations

Ensure all national/local regulations are observed.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Training advice : workers must have risk-specific training.

Other information : None.

Full text of H- and EUH-statements:

| | |
|-------------------|--|
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Narcosis |
| H225 | Highly flammable liquid and vapour |
| H304 | May be fatal if swallowed and enters airways |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |



COMERCIAL QUIMICA MASSO, S.A.
Česká Republika
Baarova 1542/48 14000 PRAHA 4
Tel.: 420 241006571 Fax: 420 241481798

TRS 4004 Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its
amendment Regulation (EU) 2015/830

| | |
|--------|--|
| H319 | Causes serious eye irritation |
| H336 | May cause drowsiness or dizziness |
| H400 | Very toxic to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |
| EUH066 | Repeated exposure may cause skin dryness or cracking |
| EUH208 | Contains . May produce an allergic reaction |

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

| | | |
|-------------------|------|-----------------------|
| Flam. Liq. 2 | H225 | On basis of test data |
| Skin Irrit. 2 | H315 | Calculation method |
| Eye Irrit. 2 | H319 | Calculation method |
| STOT SE 3 | H336 | Calculation method |
| Asp. Tox. 1 | H304 | |
| Aquatic Acute 1 | H400 | Calculation method |
| Aquatic Chronic 1 | H410 | Calculation method |

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