

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

- **1.1 Product identifier**
- **Trade name: TechniStrip® P1316**
- **Article number: STD0208**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against Industrial only**
- **Application of the substance / the preparation :**
 - Semiconductors industry
 - Plating industry
 - Electronic and microelectronic industry
 - PCB industry
 - Laboratory
 - Water treatment
 - Photovoltaic industry
 - Resins stripping
 - Stripping - Cleaning
 - Metal etching
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 - Technic France
 - 15, rue de la Montjoie
 - 93210 SAINT DENIS
 - FRANCE
- **Further information obtainable from:**
 - Sécurité des produits / Chemicals hazards dpt
 - contact : fds.technic@technic.fr
- **1.4 Emergency telephone number:**
 - +33 1 45 42 59 59 (ORFILA)
 - +33 1 49 46 51 00 (Technic - La Plaine Saint Denis)

 * **SECTION 2: Hazards identification**

- **Substance or mixture classification**
- **Classification according to Regulation (EC) No 1272/2008**



GHS06 skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.



GHS08 health hazard

STOT SE 2 H371 May cause damage to organs.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS05, GHS06, GHS08
- **Signal word** Danger
- **Hazard-determining components of labelling:**
tetramethylammonium hydroxide
- **Hazard statements**
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H371 May cause damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/national/international regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterization:**
- **Description:** Mixture: consisting of the following components.

· **Dangerous components:**

CAS: 75-59-2	tetramethylammonium hydroxide	≤ 2.5%
EINECS: 200-882-9	⚠ Acute Tox. 2, H300; Acute Tox. 1, H310; ⚠ STOT SE 1, H370; STOT RE 1, H372; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Aquatic Chronic 2, H411	
Reg.nr.: 01-2119970562-34-xxxx		

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Take the clothes off. Wash for 15 minutes.
Call a doctor immediately.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Seek immediate medical advice.
Rinse mouth out with water

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- Do not eat, do not vomit
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear fire thermal protection.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Wear gloves and safety glasses.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Recommended storage temperature:** 10 - 40 °C
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the preparation, according to EN 374

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles according to EN 166

· **Risk management measures**

Avoid exposure - obtain special instructions before use; Use barrier skin cream. Store work clothing separately. Remove soiled or soaked clothing immediately.

Respiratory protection according to: CEN 136, 140, 141, 143, 173 ; eyes protection according to: CEN 166 ; body protection according to: CEN 340, 465, 466, 497, 943 ; gloves according to: CEN 374 ; shoes according to: CEN 344, 345.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Fluid

Colour: Colourless

· **Odour:** Recognisable

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 189 °C

· **Flash point:** 87 °C

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· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	270 °C
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	1.8 Vol %
Upper:	Not determined.
· Vapour pressure at 20 °C:	0.6 hPa
· Density at 20 °C:	1.093 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity:

· LD/LC50 values relevant for classification:

75-59-2 tetramethylammonium hydroxide

Oral	DL50	34-50 mg/kg (rat)
Dermal	DL50	50 mg/kg (rabbit)

· Primary irritant effect:

- **on the skin:** Strong caustic effect on skin and mucous membranes (calculation).

- **on the eye:**

- Strong caustic effect (calculation).

- Strong irritant with the danger of severe eye injury (tests).

- **Sensitisation:** No sensitising effects known.

· Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Toxic

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Harmful
Corrosive
Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

75-59-2 tetramethylammonium hydroxide

CL50 /48h | 13.9 mg/L (daphnia)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· Ecotoxicological effects:

· **Remark:** Harmful to fish

· Additional ecological information:

· General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Harmful to aquatic organisms

· 12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packaging:

· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR, IMDG, IATA

UN3267

· 14.2 UN proper shipping name

· ADR

3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(TETRAMETHYLAMMONIUM HYDROXIDE
SOLUTION)

· IMDG, IATA

CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(TETRAMETHYLAMMONIUM HYDROXIDE
SOLUTION)

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· 14.3 Transport hazard class(es)

· ADR



· Class 8 (C7) Corrosive substances.
· Label 8

· IMDG, IATA



· Class 8 Corrosive substances.
· Label 8

· 14.4 Packing group

· ADR, IMDG, IATA III

· 14.5 Environmental hazards:

· Marine pollutant: No

· 14.6 Special precautions for user

Warning: Corrosive substances.
· Danger code (Kemler): 80
· EMS Number: F-A,S-B
· Segregation groups Alkalis

· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ) 5L
· Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

· Transport category

3

· Tunnel restriction code

E

· UN "Model Regulation":

UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TETRAMETHYLAMMONIUM HYDROXIDE SOLUTION), 8, III

* **SECTION 15: Regulatory information**

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

· National regulations:

· Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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· **Relevant phrases**

- H300 Fatal if swallowed.
- H310 Fatal in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H370 Causes damage to organs.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

· **Department issuing MSDS: EH&S Department**

· **Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- Acute Tox. 2: Acute toxicity, Hazard Category 2
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Acute Tox. 1: Acute toxicity, Hazard Category 1
- Acute Tox. 3: Acute toxicity, Hazard Category 3
- Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
- Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
- Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
- STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1
- STOT SE 2: Specific target organ toxicity - Single exposure, Hazard Category 2
- STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
- STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
- Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
- Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

· *** Data compared to the previous version altered.**