

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 29.11.2018

Version number 4

Revision: 22.11.2018

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

- 1.1 Product identifier

- Trade name: **TB 3911D**

- 1.2 Relevant identified uses of the substance or mixture and uses advised against

- Sector of Use **SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites**

- Application of the substance / the mixture

Cleaning agent/ Cleaner

- 1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier: **THREE BOND EUROPE S.A.S** TEL : 33 (0)1 34 32 39 60
 B.P 9105
 95073 CERGY PONTOISE FAX : 33 (0)1 34 32 39 61
 FRANCE

- Information department: **Three Bond Europe H&S department : msds@threebond.fr**
 Site : <http://quickfds.com>

- 1.4 Emergency telephone number:

ORFILA (France) - Tel : +33 (0)1 45 42 59 59 (24h)
 Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24)
 EU Tel : 112

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Aerosol 1 H222-H229 **Extremely flammable aerosol. Pressurised container: May burst if heated.**



GHS08 health hazard

Carc. 2 H351 **Suspected of causing cancer.**
 STOT SE 1 H370 **Causes damage to organs.**



GHS07

Acute Tox. 4 H302 **Harmful if swallowed.**
 Eye Irrit. 2 H319 **Causes serious eye irritation.**
 STOT SE 3 H335-H336 **May cause respiratory irritation. May cause drowsiness or dizziness.**

- 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



GHS02



GHS07



GHS08

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- **Signal word** Danger
- **Hazard-determining components of labelling:** tetrahydrofuran
methanol
ethylcyclohexane
butanone
- **Hazard statements** H222-H229 Extremely flammable aerosol. Pressurised container:
May burst if heated.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H370 Causes damage to organs.
H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
- **Precautionary statements** P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251 Do not pierce or burn, even after use.
P260 Do not breathe spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:** EUH019 May form explosive peroxides.
Restricted to professional users.
Keep out of the reach of children
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:

CAS: 115-10-6 EINECS: 204-065-8	dimethyl ether ⚠ Flam. Gas 1, H220; ⚠ Acute Tox. 2, H330; Press. Gas (Comp.), H280	50–100%
CAS: 109-99-9 EINECS: 203-726-8	tetrahydrofuran ⚠ Flam. Liq. 2, H225; ⚠ Carc. 2, H351; ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335	25–50%
CAS: 78-93-3 EINECS: 201-159-0	butanone ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	≥2,5–<10%
CAS: 1678-91-7 EINECS: 216-835-0	ethylcyclohexane ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ STOT SE 3, H336	≥2,5–<10%

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CAS: 67-56-1 EINECS: 200-659-6	methanol ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ STOT SE 1, H370	(Contd. of page 2) ≥3- <10%
- Additional information For the wording of the listed hazard phrases refer to section 16.		

SECTION 4: First aid measures

- 4.1 Description of first aid measures

- General information

In case of irregular breathing or respiratory arrest provide artificial respiration.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

- After swallowing

Do not induce vomiting; call for medical help immediately.

A person vomiting while lying on their back should be turned onto their side.

Induce vomiting, only if affected person is fully conscious.

- 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, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.

Use fire fighting measures that suit the environment.

- 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

During heating or in case of fire poisonous gases are produced.

- 5.3 Advice for firefighters

- Protective equipment:

Mount respiratory protective device.

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

- Additional information

Cool endangered receptacles with water spray.

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Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.
Ensure adequate ventilation
Wear protective clothing.

- 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

- 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.
Dispose contaminated material as waste according to item 13.

- 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

Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.

- Information about protection against explosions and fires:

Do not spray on a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

- 7.2 Conditions for safe storage, including any incompatibilities

- Storage

- Requirements to be met by storerooms and receptacles:

Store in a cool location.
Observe official regulations on storing packagings with pressurised containers.
Use only receptacles specifically permitted for this substance/product.

- Information about storage in one common storage facility: Not required.

- Further information about storage conditions:

Protect from heat and direct sunlight.

- 7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical systems:

No further data; see item 7.

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- 8.1 Control parameters

- Components with limit values that require monitoring at the workplace:

115-10-6 dimethyl ether	
VME (France)	Long-term value: 1920 mg/m ³ , 1000 ppm
109-99-9 tetrahydrofuran	
VME (France)	Short-term value: 300 mg/m ³ , 100 ppm Long-term value: 150 mg/m ³ , 50 ppm C2, risque de pénétration percutanée
78-93-3 butanone	
VME (France)	Short-term value: 900 mg/m ³ , 300 ppm Long-term value: 600 mg/m ³ , 200 ppm risque de pénétration percutanée

- DNELs

67-56-1 methanol

Oral	DNEL	8 mg/kg (Consommateurs) short & long term exposure - systemic effect
Dermal	DNEL	40 mg/kg (Travailleur) acute/short & long term exposure - systemic effect
Inhalative	DNEL	50 mg/m ³ (Consommateurs) acute/short & long term exposure - systemic effect 260 mg/m ³ (Travailleur) acute/short & long term exposure - systemic & local effect

- **Additional information:** The lists that were valid during the creation were used as basis.

- 8.2 Exposure controls

- Personal protective equipment

- General protective and hygienic measures

The usual precautionary measures should be adhered to when handling chemicals.

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.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

- Breathing equipment:

Use suitable respiratory protective device in case of insufficient ventilation.

- Protection of hands:



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- Material of gloves

Nitrile rubber, NBR
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.

- 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:

Safety glasses

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- Body protection: Protective work clothing.

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SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form:	Fluid
Colour:	Clear
- Odour:	Characteristic

- Change in condition

Melting point/freezing point:	undetermined
Initial boiling point and boiling range:	> 60 °C

- Flash point: -14 °C

- Flammability (solid, gaseous) Not applicable.

- Self igniting: Product is not selfigniting.

- Explosive properties: May form explosive peroxides.

- Vapour pressure: Not determined.

- Density at 20 °C: 0,85 g/cm³

- Evaporation rate Not applicable.

- Solubility in / Miscibility with

Water: Partly soluble

- Viscosity:

dynamic at 20 °C: 130 mPas (-)

- 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.

- 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 Harmful if swallowed.

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- LD/LC50 values that are relevant for classification:

115-10-6 dimethyl ether

Inhalative	LC50/4 h	308 mg/l (rat)
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109-99-9 tetrahydrofuran

Oral	LD50	3000 mg/kg (rat)
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78-93-3 butanone

Oral	LD50	3300 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rabbit)

67-56-1 methanol

Oral	LD50	7,914 mg/kg (rat)
Dermal	LD50	17,11 mg/kg (rabbit)
Inhalative	LC50/4 h	128,2 mg/l (rat)

- Primary irritant effect:

- **Skin corrosion/irritation** *Based on available data, the classification criteria are not met.*
- **Serious eye damage/irritation** *Causes serious eye irritation.*
- **Respiratory or skin sensitisation** *Based on available data, the classification criteria are not met.*
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** *Based on available data, the classification criteria are not met.*
- **Carcinogenicity** *Suspected of causing cancer.*
- **Reproductive toxicity** *Based on available data, the classification criteria are not met.*
- **STOT-single exposure** *Causes damage to organs.*
- **STOT-repeated exposure** *Based on available data, the classification criteria are not met.*
- **Aspiration hazard** *Based on available data, the classification criteria are not met.*

SECTION 12: Ecological information

- 12.1 Toxicity

- Aquatic toxicity:

67-56-1 methanol

LC50/96h	15,4 mg/l (Leopomis macrochirus)
CE50/48h	>10000 mg/l (daphnia)
CE50/96h	22 mg/l (Selenastrum capricomutum)

- **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.*
- **Additional ecological information:**
- **General notes:** *Not known to be hazardous to water.*
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **12.6 Other adverse effects** *No further relevant information available.*

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SECTION 13: Disposal considerations

- 13.1 Waste treatment methods

- Recommendation

Must be specially treated adhering to official regulations.



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

- Uncleaned packagings:

- Recommendation:

Disposal must be made according to official regulations.

Dispose of packaging according to regulations on the disposal of packagings.

SECTION 14: Transport information

- 14.1 UN-Number

- ADR/RID/ADN, IMDG, IATA

UN1950

- 14.2 UN proper shipping name

- ADR/RID/ADN

UN1950 AEROSOLS

- IMDG

AEROSOLS

- IATA

Aerosols, flammable

- 14.3 Transport hazard class(es)

- ADR/RID/ADN



- Class

2 5F Gases.

- Label

2.1

- IMDG, IATA



- Class

2.1

- Label

2.1

- 14.4 Packing group

- ADR/RID/ADN, IMDG, IATA

Void

- 14.5 Environmental hazards:

- Marine pollutant:

No

- 14.6 Special precautions for user

Warning: Gases.

- Danger code (Kemler):

-

- EMS Number:

F-D,S-U

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<ul style="list-style-type: none"> - Stowage Code 	<p>SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.</p>
<ul style="list-style-type: none"> - Segregation Code 	<p>SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.</p>
<ul style="list-style-type: none"> - 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	<p>Not applicable.</p>
<ul style="list-style-type: none"> - Transport/Additional information: 	<p>Not dangerous according to the above specifications.</p>
<ul style="list-style-type: none"> - ADR/RID/ADN - Limited quantities (LQ) - Excepted quantities (EQ) 	<p>1L Code: E0 Not permitted as Excepted Quantity</p>
<ul style="list-style-type: none"> - Transport category - Tunnel restriction code 	<p>2 D</p>
<ul style="list-style-type: none"> - IMDG 	
<ul style="list-style-type: none"> - Limited quantities (LQ) - Excepted quantities (EQ) 	<p>1L Code: E0 Not permitted as Excepted Quantity</p>
<ul style="list-style-type: none"> - UN "Model Regulation": 	<p>UN 1950 AEROSOLS, 2.1</p>

SECTION 15: Regulatory information

<ul style="list-style-type: none"> - 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture - Directive 2012/18/EU - Named dangerous substances - ANNEX I - Seveso category 	<p>None of the ingredients is listed. H3 STOT SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE P3a FLAMMABLE AEROSOLS</p>
<ul style="list-style-type: none"> - Qualifying quantity (tonnes) for the application of lower-tier requirements 	<p>50 t</p>
<ul style="list-style-type: none"> - Qualifying quantity (tonnes) for the application of upper-tier requirements 	<p>200 t</p>
<ul style="list-style-type: none"> - REGULATION (EC) No 1907/2006 ANNEX XVII 	<p>Conditions of restriction: 3, 69</p>

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- 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.

- Relevant phrases

H220 Extremely flammable gas.
 H225 Highly flammable liquid and vapour.
 H280 Contains gas under pressure; may explode if heated.
 H301 Toxic if swallowed.
 H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H311 Toxic in contact with skin.
 H319 Causes serious eye irritation.
 H330 Fatal if inhaled.
 H331 Toxic if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H351 Suspected of causing cancer.
 H370 Causes damage to organs.

- Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 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)
 DNEL: Derived No-Effect Level (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Gas 1: Flammable gases – Category 1
 Aerosol 1: Aerosols – Category 1
 Press. Gas (Comp.): Gases under pressure – Compressed gas
 Flam. Liq. 2: Flammable liquids – Category 2
 Acute Tox. 3: Acute toxicity – Category 3
 Acute Tox. 4: Acute toxicity – Category 4
 Acute Tox. 2: Acute toxicity – Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 Carc. 2: Carcinogenicity – Category 2
 STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 Asp. Tox. 1: Aspiration hazard – Category 1

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