

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

- **1.1 Product identifier**
- **Trade name: ACRY C&B LIQUIDO SPECIAL**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Life cycle stages PW** Widespread use by professional workers
- **Application of the substance / the mixture** Material for dental use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dental Manufacturing S.p.a.
Via Cà Mignola Nuova, 1699
45021 - Badia Polesine (RO) - Italy
Tel. +39 0425 51628 - Fax +39 0425 590156
- **Further information obtainable from:** info@ruthinium.it
- **1.4 Emergency telephone number:**
Dental Manufacturing S.p.a. - Tel. +39 0425 51628 (Office Hours)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

- **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

- **Signal word** Danger
- **Hazard-determining components of labelling:**
methyl methacrylate
Triethylene glycol dimethacrylate
ethylene dimethacrylate
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
- **Precautionary statements**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.10.2020

Version number 8

Revision: 15.10.2020

Trade name: ACRY C&B LIQUIDO SPECIAL

(Contd. of page 1)

- P261 Avoid breathing vapours.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/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 characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 80-62-6 EINECS: 201-297-1 Reg.nr.: 01-2119452498-28-xxxx	methyl methacrylate ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	40-60%
CAS: 109-16-0 Reg.nr.: 01-2119969287-21	Triethylene glycol dimethacrylate ⚠ Skin Sens. 1, H317	15-25%
CAS: 97-90-5 EINECS: 202-617-2 Reg.nr.: 01-2119965172-38-0000	ethylene dimethacrylate ⚠ Skin Sens. 1, H317; STOT SE 3, H335 Specific concentration limit: STOT SE 3; H335: C ≥ 10 %	5-15%

- **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:**
Rescue workers must wear the protective equipment described in section 8.2 of this safety data sheet.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Rinse your mouth well
- **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.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Use respiratory protection

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.10.2020

Version number 8

Revision: 15.10.2020

Trade name: ACRY C&B LIQUIDO SPECIAL

(Contd. of page 2)

See Section 8 for information on personal protection equipment.
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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
See Section 8 for information on personal protection equipment.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** 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).
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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **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:**

CAS: 80-62-6 methyl methacrylate (40-60%)

WEL	Short-term value: 416 mg/m ³ , 100 ppm
	Long-term value: 208 mg/m ³ , 50 ppm

- **DNELs**

CAS: 80-62-6 methyl methacrylate

Dermal	Long term, local effect	1.5 mg/kg (general population) 1.5 mg/kg (professional workers)
	Long term, systemic effect	13.67 mg/kg (professional workers)
	Long term, systemic effect	8.2 mg/kg bw/day (general population)
Inhalative	Long term, local effect	105 mg/m ³ (general population) 210 mg/m ³ (professional workers)
	Long term, systemic effect	74.3 mg/m ³ (general population) 210 mg/m ³ (professional workers)

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.10.2020

Version number 8

Revision: 15.10.2020

Trade name: ACRY C&B LIQUIDO SPECIAL

(Contd. of page 3)

CAS: 109-16-0 Triethylene glycol dimethacrylate

Dermal	Long term, systemic effect	13.9 mg/kg (professional workers)
	Long term, systemic effect	13.9 mg/kg bw/day (professional workers)
Inhalative	Long term, systemic effect	48.5 mg/m ³ (professional workers)

CAS: 97-90-5 ethylene dimethacrylate

Dermal	Long term, systemic effect	1.3 mg/kg (professional workers)
Inhalative	Long term, systemic effect	2.45 mg/m ³ (professional workers)

· **PNECs****CAS: 80-62-6 methyl methacrylate**

PNEC	5.74 mg/kg (fresh water sediments)
PNEC	0.94 mg/l (freshwater)
	0.094 mg/l (marine water)

CAS: 109-16-0 Triethylene glycol dimethacrylate

PNEC	0.185 mg/kg (fresh water sediments)
	0.0185 mg/kg (marine water sediments)
	0.027 mg/kg (soil)
PNEC	0.016 mg/l (freshwater)
	0.0016 mg/l (marine water)
	1.7 mg/l (sewage treatment plant)

CAS: 97-90-5 ethylene dimethacrylate

PNEC	0.139 mg/l (freshwater)
	0.0139 mg/l (marine water)

· **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.
Avoid contact with the skin.
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

Only use EN 374-3 certified protective gloves against chemical agents.

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

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

· **Material of gloves**

Butyl rubber, BR

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. 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.

Recommended thickness of the material: ≥ 0.2 mm

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.10.2020

Version number 8

Revision: 15.10.2020

Trade name: ACRY C&B LIQUIDO SPECIAL

(Contd. of page 4)

- **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.
Value for the permeation: Level 2/3
- **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - **Form:** Fluid
 - **Colour:** Colourless
 - **Odour:** Characteristic
 - **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
 - **Melting point/freezing point:** -48 °C
 - **Initial boiling point and boiling range:** 101 °C
- **Flash point:** 10 °C
- **Flammability (solid, gas):** Not applicable.
- **Ignition temperature:** 430 °C
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- **Explosion limits:**
 - **Lower:** 2.1 Vol %
 - **Upper:** 12.5 Vol %
- **Vapour pressure at 20 °C:** 47 hPa
- **Density at 20 °C:** 0.95 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with water at 20 °C:** 16 g/l
Soluble.
- **Partition coefficient: n-octanol/water:** 1.38 log POW
- **Viscosity:**
 - **Dynamic:** Not determined.
 - **Kinematic:** Not determined.
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.10.2020

Version number 8

Revision: 15.10.2020

Trade name: **ACRY C&B LIQUIDO SPECIAL**

(Contd. of page 5)

- **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**
The product is normally supplied in a stabilized form. Avoid excessive heat for long periods of time, the product can polymerize. Avoid heat, flames and other sources of ignition
- **10.5 Incompatible materials:** Avoid contact with acids and oxidants.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

CAS: 80-62-6 methyl methacrylate

Oral	LD50	7,872 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	33 mg/l (mouse)
		29.8 mg/l (rat)

CAS: 109-16-0 Triethylene glycol dimethacrylate

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

CAS: 97-90-5 ethylene dimethacrylate

Oral	LD50	3,300 mg/kg (rat)
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- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause respiratory irritation.
- **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:**

CAS: 80-62-6 methyl methacrylate

CL50	>79 mg/l (fish)	(Esposizione 96 h)
EC50	69 mg/kg	(daphnia)
EC50	>110 mg/l (algae)	(Esposizione 72 h)
		69 mg/l (daphnia)
NOEC	37 mg/l	(daphnia)
		9.4 mg/l

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.10.2020

Version number 8

Revision: 15.10.2020

Trade name: ACRY C&B LIQUIDO SPECIAL

(Contd. of page 6)

CAS: 109-16-0 Triethylene glycol dimethacrylate

CL50 16.4 mg/l (fish)

EC50 >100 mg/l (algae) (Esposizione 72h)

CAS: 97-90-5 ethylene dimethacrylate

EC50 6.93 mg/l (algae) (OCSE 201, 72h)

44.9 mg/l (daphnia) (Esposizione 48 h)

NOEC 5.05 mg/l (daphnia)

- **12.2 Persistence and degradability** Easily biodegradable
- **12.3 Bioaccumulative potential** Non significant accumulation in organisms
- **12.4 Mobility in soil** No further relevant information available.

- **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.

- **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**

Do not discard the product or its packaging. Do not empty into drains. Recycle the product. When recycling is not possible, dispose through an authorized company in compliance with the local or national regulations. The assignment of the waste code is the user's responsibility, after determining the properties of the waste and the process generating it and after discussing it with the authorities responsible for disposal.

- **Uncleaned packaging:**

- **Recommendation:**

Empty the containers before disposal. Do not reuse the emptied containers. Send the empty containers to recycling or to an authorized company in compliance with local and national regulations.

- **Recommended cleansing agents:** Water.

SECTION 14: Transport information

- **14.1 UN-Number**

- **ADR, IMDG, IATA**

UN1247

- **14.2 UN proper shipping name**

- **ADR**

1247 METHYL METHACRYLATE MONOMER,
STABILIZED solution

- **IMDG, IATA**

METHYL METHACRYLATE MONOMER,
STABILIZED solution

- **14.3 Transport hazard class(es)**

- **ADR, IMDG, IATA**



- **Class**

3 Flammable liquids.

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.10.2020

Version number 8

Revision: 15.10.2020

Trade name: ACRY C&B LIQUIDO SPECIAL

(Contd. of page 7)

· Label	3
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code	Warning: Flammable liquids. 339 F-E, S-D B SW2 Clear of living quarters.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category · Tunnel restriction code	2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1247 METHYL METHACRYLATE MONOMER, STABILIZED SOLUTION, 3, II

SECTION 15: Regulatory information

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

Safety data sheet prepared in accordance with Regulation 1907/2006/EC Article 31, Regulation (EU) No 830/2015 as subsequent amendments.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category P5c** FLAMMABLE LIQUIDS

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **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. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not

(Contd. on page 9)

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

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Version number 8

Revision: 15.10.2020

Trade name: ACRY C&B LIQUIDO SPECIAL

(Contd. of page 8)

to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

• **Relevant phrases**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

• **Classification according to Regulation (EC) No 1272/2008**

As required by Regulation 1272/2008/CE art. 9, the classification of this compound is based on the calculation method taken from the data of the single substances therein and from the experimental data of this compound where available (viewable in sections 9, 11 and 12 in this document).

Procedure used for the classification of the mixture

Flam. Liq. 2, H225 - According to experimental data

Skin Irrit. 2, H315 - Calculation method

Skin Sens 1 / 1A / 1B, H317 - Calculation method

STOT SE 3, H335 - Calculation method

• **Contact: ----**

• **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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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