Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878

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

1.1. Product identifier

Code: **LIQUIDO SELF**
Product name **SELF LIQUID**

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

Intended use **SELF LIQUID**

Identified Uses	Industrial	Professional	Consumer
DENTAL USE	-	✓	-
Uses Advised Against			
For all non-intended uses			

1.3. Details of the supplier of the safety data sheet

Name **DENTAL MANUFACTURING S.P.A.**
Full address **Via Cà Mignola Nuova, 1699**
District and Country **45021 Badia Polesine (Rovigo)**
Italia
Tel. +39 0425 51628
e-mail address of the competent person responsible for the Safety Data Sheet **info@ruthinium.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Dental Manufacturing S.p.a. - Tel. +39 0425 51628 (Orari Ufficio)**
Centro Antiveleni di Verona 800 011858 (Azienda Ospedaliera Integrata - Verona)
Centro Antiveleni di Milano 02 66101029 (Ospedale Niguarda Ca' Granda -Milano)
Centro Antiveleni di Pavia 0382 24444 (Centro Nazionale di Informazione Tossicologica - Pavia)
Centro Antiveleni di Bergamo 800 883300 (Az. Osp. Papa Giovanni XXIII - Bergamo)
Centro Antiveleni di Firenze 055 7947819 (Az. Osp. "Careggi" U.O. Tossicologia Medica - FI)
Centro Antiveleni di Roma 06 3054343 (CAV Policlinico Gemelli - Roma)
Centro Antiveleni di Roma 06 49978000 (CAV Policlinico Umberto I - Roma)
Centro Antiveleni di Napoli 081 7472870 (CAV Ospedale Cardarelli - Napoli)
Centro Antiveleni di Foggia 0881 732326 (CAV Ospedale Univ. - Foggia)
Centro Antiveleni di Roma 06 68593726 (CAV Osp. Pediatrico Bambino Gesù - Roma)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 2	H225	Highly flammable liquid and vapour.
Carcinogenicity, category 1B	H350	May cause cancer.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification ... / >>

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal word: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H350	May cause cancer.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
	Restricted to professional users.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P201	Obtain special instructions before use.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P308+P313	IF exposed or concerned: Get medical advice / attention.
P370+P378	In case of fire: use . . . to extinguish.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.

Contains: N,N-dimetil-p-toluidina
METHYL METHACRYLATE
dimetacrilato di etilene
2-(2H-benzotriazol-2-yl)-p-cresol

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification		**x = Conc. %**	**Classification (EC) 1272/2008 (CLP)**
METHYL METHACRYLATE			
INDEX	*607-035-00-6*	94 ≤ x < 98	**Flam. Liq. 2 H225, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Classification note according to Annex VI to the CLP Regulation: D**
EC	*201-297-1*		
CAS	*80-62-6*		
REACH Reg.	*01-2119452498-28*		
dimetacrilato di etilene			
INDEX	*607-114-00-5*	1,5 ≤ x < 2	**STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Chronic 3 H412, Classification note according to Annex VI to the CLP Regulation: D**
EC	*202-617-2*		**STOT SE 3 H335: ≥ 10%**
CAS	*97-90-5*		
REACH Reg.	*01-2119965172-38*		
N,N-dimetil-p-toluidina			
INDEX	*612-296-00-4*	0,7 ≤ x < 0,8	**Carc. 1B H350, Repr. 2 H361f, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 4 H332, STOT RE 2 H373, Skin Sens. 1 H317, Aquatic Chronic 3 H412**
EC	*202-805-4*		**LD50 Oral: 140 mg/kg, ATE Dermal: 300 mg/kg, ATE Inhalation**

SECTION 3. Composition/information on ingredients ... / >>

mists/powders: 1,5 mg/l

CAS *99-97-8*
2-(2H-benzotriazol-2-yl)-p-cresol
INDEX 0,1 ≤ x < 0,15 **Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC *219-470-5*
CAS *2440-22-4*

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

In case of doubt or in the presence of symptoms contact a doctor and show him this document.
In case of more severe symptoms, ask for immediate medical aid.
EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Take off immediately all contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice/attention. Avoid further contact with contaminated clothing.
INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.
INHALATION: Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

Specific information on symptoms and effects caused by the product are unknown.

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

IF exposed or concerned: Get medical advice / attention.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

METHYL METHACRYLATE
Heat may cause the product to polymerise, which could lead to explosion.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.28 от 2 Април 2024г.)
CZE	Česká Republika	NAŘÍZENÍ VLÁDY ze dne 18. října 2023, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	WirkungDosisNOAELMAK-und BAT-Werte-Liste 2024 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe

SECTION 8. Exposure controls/personal protection ... / >>

DNK	Danmark	BEK nr 291 af 19/03/2024 (Historisk) Bekendtgørelse om grænseværdier for stoffer og materialer (kemiske agenser) i arbejdsmiljøet
ESP	España	Límites de exposición profesional para agentes químicos en España 2024
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ''σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία''»
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
LVA	Latvija	Grozījumi Ministru kabineta 2007. gada 15. maija noteikumos Nr. 325 "Darba aizsardzības prasības saskarē ar ķīmiskajām vielām darba vietās" Oficiālās publikācijas Nr.: 2024/65.2
NLD	Nederland	Regeling van de Minister van Sociale Zaken en Werkgelegenheid van 13 mei2024, nr. 2024-0000092805, tot wijziging van deArbeidsomstandighedenregeling in verband met de implementatie vanRichtlijn 2022/431
PRT	Portugal	Decreto-Lei n.º 102/2024, de 4 de dezembro. Sumário: Transpõe para a ordem jurídica interna a Diretiva (UE) 2022/431, relativa à proteção dos trabalhadores contra riscos ligados à exposição a agentes cancerígenos ou mutagénicos e procede à quarta alteração
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 24 czerwca 2024 r. zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	HOTĂRÂRE nr. 179 din 28 februarie 2024 pentru modificarea şi completarea Hotărârii Guvernului nr. 1.093/2006 privind stabilirea cerinţelor minime de securitate şi sănătate pentru protecţia lucrătorilor împotriva riscurilor legate de expunerea la agenţi ca
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti rakotvornim, mutagenim ali reprotoksičnim snovem pri delu. Ljubljana, četrtek 4. 4. 2024
TUR	Türkiye	Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733; 20.10.2023 / 32345.
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	ACGIH	ACGIH 2025

2-(2H-benzotriazol-2-yl)-p-cresol		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,00026	mg/l
Normal value in marine water	0,000026	mg/l
Normal value for fresh water sediment	0,136	mg/kg
Normal value for marine water sediment	0,0136	mg/kg
Normal value for the terrestrial compartment	11	mg/kg

SECTION 8. Exposure controls/personal protection ... / >>

METHYL METHACRYLATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR		50		100	
TLV	CZE	50	12	150	36	
AGW	DEU	210	50	420	100	
MAK	DEU	210	50	420	100	
TLV	DNK	102	25		100	SKIN E
VLA	ESP		50		100	
VLEP	FRA	205	50	410	100	
TLV	GRC		50		100	
VLEP	ITA		50		100	
RV	LVA	10				
TGG	NLD	205		410		
VLE	PRT		50		100	
NDS/NDSCh	POL	100		300		
TLV	ROU	205	50	410	100	
MV	SVN	210	50	420	100	
ESD	TUR		50		100	
WEL	GBR	208	50	416	100	
OEL	EU		50		100	
ACGIH		205	50	410	100	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,94	mg/l
Normal value in marine water	0,094	mg/l
Normal value for fresh water sediment	10,2	mg/kg
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	8,2	mg/kg
Normal value for the terrestrial compartment	1,48	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				8,2 mg/kg bw/d				
Inhalation	208 mg/m3		105 mg/m3	74,3 mg/m3	416 mg/m3		210 mg/m3	208 mg/m3
Skin			1,5 mg/kg	8,2 mg/kg	1,50 µg/cm2		1,5 mg/kg	13,67 mg/kg

dimetacrilato di etilene

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,139	mg/l
Normal value in marine water	0,014	mg/l
Normal value for fresh water sediment	1,6	mg/kg
Normal value for marine water sediment	0,016	mg/kg
Normal value of STP microorganisms	57	mg/l
Normal value for the terrestrial compartment	0,239	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		830,0 µg/kg				
Inhalation		NPI	NPI	1,45 mg/m³	NPI	NPI	NPI	2,45 mg/m³
Skin		NPI	MED	830,0 µg/kg	MED	NPI	MED	1,3 mg/kg

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
The product must be used inside a closed circuit, in a well-ventilated environment and with strong localised aspiration systems in place.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN ISO 16321).
RESPIRATORY PROTECTION
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value		Information
Appearance	liquid		
Colour	colourless		
Odour	characteristic		
Melting point / freezing point	-48	°C	
Initial boiling point	101	°C	
Flammability	flammable liquid		
Lower explosive limit	not available		Concentration: 2,1 %
Upper explosive limit	not available		Concentration: 12,5 %
Flash point	10	°C	
Auto-ignition temperature	430	°C	
Decomposition temperature	not available		
pH	not determined		
Kinematic viscosity	not determined		
Dynamic viscosity	not determined		
Solubility	1,6	g/l	Temperature: 20 °C
Partition coefficient: n-octanol/water	not available		
Vapour pressure	47	hPa	Temperature: 20 °C
Density and/or relative density	0,95	g/cm3	Temperature: 20 °C
Relative vapour density	not determined		
Particle characteristics	not applicable		

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Flammable liquids
Flammable liquids — Remark:highly flammable liquids and vapours

9.2.2. Other safety characteristics

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

N,N-dimetil-p-toluidina
Upon strong heating, it forms explosive mixtures with air.
A range starting from approximately 15 Kelvin below the flash point is considered critical.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

METHYL METHACRYLATE
May polymerise on contact with: ammonia,organic peroxides,persulphates.Risk of explosion on contact with: dibenzoyl peroxide,diterbutyl peroxide,propionaldehyde.May react dangerously with: strong oxidising agents.Forms explosive mixtures with: air.
N,N-dimetil-p-toluidina
On contact with: strong acids,acids,acid halides,acid anhydrides,nitric acid.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

METHYL METHACRYLATE
Avoid exposure to: heat,UV rays.Avoid contact with: oxidising substances,reducing substances,acids,bases.
N,N-dimetil-p-toluidina
May react dangerously if exposed to: heat.

10.5. Incompatible materials

N,N-dimetil-p-toluidina
Compatible materials: mild steel.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

METHYL METHACRYLATE
When heated to decomposition releases: harsh fumes,zinc alloys.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

SECTION 11. Toxicological information ... / >>

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

METHYL METHACRYLATE

LD50 (Dermal):	37500 mg/kg (coniglio)
LD50 (Oral):	12500 mg/kg (ratto)
LC50 (Inhalation vapours):	29,4 mg/l/4h (ratto)

dimetacrilato di etilene

LD50 (Dermal):	> 2000 mg/kg (ratto)
LD50 (Oral):	> 5000 mg/kg (ratto)

N,N-dimetil-p-toluidina

LD50 (Dermal):	> 2000 mg/kg Rabbit (Linee Guida 402 per il Test dell'OECD)
ATE (Dermal):	300 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	140 mg/kg
LC50 (Inhalation mists/powders):	1,4 mg/l

2-(2H-benzotriazol-2-yl)-p-cresol

LD50 (Dermal):	> 2000 mg/kg RATTO
LD50 (Oral):	> 10000 mg/kg RATTO
LC50 (Inhalation mists/powders):	> 0,59 mg/l/4h RATTO

SKIN CORROSION / IRRITATION

Causes skin irritation

dimetacrilato di etilene
FDA 1959 draiize, occlusive (rabbit, 24 h): not irritating

N,N-dimetil-p-toluidina
Skin - On rabbit
Result: No skin irritation - 4 h
(OECD Test Guideline 404)

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

N,N-dimetil-p-toluidina
Eyes - On rabbit
Result: No eye irritation - 1 h
(OECD Test Guideline 405)

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

N,N-dimetil-p-toluidina
Patch testing:
Result: positive
Comments: (ECHA)

Skin sensitization

dimetacrilato di etilene
Local lymph nodes test (LLNA), Oecd 429 (mouse): Sensitization of the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

dimetacrilato di etilene
Chromosomal aberration (Oecd 473): positive

SECTION 11. Toxicological information ... / >>

N,N-dimetil-p-toluidina
Test Type: Ames Test
Test system: S. typhimurium
Metabolic activation: with or without metabolic activation
Result: negative
Comments: (ECHA)

CARCINOGENICITY

May cause cancer

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause respiratory irritation

Target organs

dimetacrilato di etilene
Respiratory system - Category 3 with irritation of the respiratory tract. UE-CLP Conf. system (EC) n ° 1272/2008, annex VI

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

METHYL METHACRYLATE

LC50 - for Fish	> 79 mg/l Giudizio di esperti
EC50 - for Crustacea	69 mg/l/48h (Daphnia magna (Pulce d'acqua grande),
EC50 - for Algae / Aquatic Plants	> 100 mg/l (Selenastrum capricornutum (alga verde),(OCSE 201)
Chronic NOEC for Fish	9,4 mg/l (Danio rerio (pesce zebra)):(OECD 210)
Chronic NOEC for Crustacea	37 mg/l (Daphnia magna (Pulce d'acqua grande),(OCSE 202 parte 2)

dimetacrilato di etilene

LC50 - for Fish	15,95 mg/l/96h Brachydanio rerio
EC50 - for Crustacea	44,9 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	17,3 mg/l/72h Pseudokirchneriella subcapitata
EC10 for Algae / Aquatic Plants	6,93 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Crustacea	5,05 mg/l Daphnia magna

Toxicity for micro-organisms: EC50 (Pseudomonas putida, 3 h): 570 mg/l (Oecd 209)

N,N-dimetil-p-toluidina

LC50 - for Fish	46 mg/l/96h Pimephales promelas

2-(2H-benzotriazol-2-yl)-p-cresol

LC50 - for Fish	> 0,17 mg/l/96h Oncorhynchus mykiss
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	> 0,013 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	> 33 mg/l Desmodesmus subspicatus

SECTION 12. Ecological information ... / >>

12.2. Persistence and degradability

The paraffinic hydrocarbons fraction may be considered biodegradable in water and in air. They distribute mostly in the air. The small non biodegradable amount which spreads into water tends to accumulate in fish.

METHYL METHACRYLATE

Solubility in water	15300 mg/l dato ECHA
Rapidly degradable	94 % (14 d, OCSE 301 C), Facilmente biodegradabile

dimetacrilato di etilene

Solubility in water	1,086 g/l
Rapidly degradable	69 % (28 d, OECD 301 F)

N,N-dimetil-p-toluidina

Solubility in water	650 mg/l (37 °C)
Degradability: information not available	

12.3. Bioaccumulative potential

METHYL METHACRYLATE

Partition coefficient: n-octanol/water	1,38

dimetacrilato di etilene

Partition coefficient: n-octanol/water	2,4

N,N-dimetil-p-toluidina

Partition coefficient: n-octanol/water	1,73 Log Kow 35°C

12.4. Mobility in soil

METHYL METHACRYLATE

Partition coefficient: soil/water	0,94

dimetacrilato di etilene
From the water phase, the substance is preferably left on the aquatic phase and in the soil.

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

dimetacrilato di etilene
Avoid infiltration in soil, waters and channels. Photochemical degradation (air) takes place.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 1993

14.2. UN proper shipping name

ADR / RID: FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE)
IMDG: FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE)
IATA: FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID: NO
IMDG: not marine pollutant
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 33	Limited Quantities: 1 lt	Tunnel restriction code: (D/E)
	Special provision: 274, 601, 640D		
IMDG:	EMS: F-E, S-E	Limited Quantities: 1 lt	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Passengers:	Maximum quantity: 5 L	Packaging instructions: 353
	Special provision:	A3	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: P5c

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40
Contained substance
Point 75
Point 28 N,N-dimetil-p-toluidina

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

SECTION 15. Regulatory information ... / >>

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this health-dangerous chemical agent must undergo sanitary checks carried out in compliance with 2004/37/EC directive.

N,N-dimetil-p-toluidina
Regulation (EC) no. 2024/590 on substances that deplete the ozone layer: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast): Not applicable

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Carc. 1B	Carcinogenicity, category 1B
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H350	May cause cancer.
H361f	Suspected of damaging fertility.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization

SECTION 16. Other information ... / >>

- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

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2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
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21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
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28. Regulation (EU) 2024/2865
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- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.