1. Identification

Product identifier

Monomer: Combipress / Weropress / PremEco Line

Further trade names

Combipress N/LM, CC Monomer
Weropress®, CC Monomer
PremEco® Line, CC Monomer

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Material for the manufacture of dental medical devices.

Details of the supplier of the safety data sheet

Company name:	Merz Dental GmbH	
Street:	Kieferweg 1	
Place:	D-24321 Luetjenburg (GERMANY)	
Telephone:	+49-(0)4381-403-0	Telefax: +49-(0)4381-403-100
E-mail:	info@merz-dental.de	
Contact person:	Dipl. Chem Dr. Thomas Panther	Telephone: +49-(0)4381-403-448
E-mail:	Thomas.Panther@merz-dental.de	
Internet:	www.merz-dental.de	
Responsible Department:	Qualitaetssicherung (Quality Assurance)	

Emergency phone number: +49-(0)551-19240 (Giftinformationszentrum-Nord, Göttingen) 24h / 7d

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

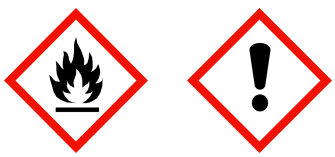
Flammable liquids: Flam. Liq. 2
Skin corrosion/irritation: Skin Irrit. 2
Respiratory or skin sensitization: Skin Sens. 1
Specific target organ toxicity single exposure: STOT SE 3 (respiratory tract irritation)

Label elements

29 CFR Part 1910.1200

Signal word: Danger

Pictograms:



Hazard statements

Highly flammable liquid and vapor
Causes skin irritation
May cause an allergic skin reaction
May cause respiratory irritation

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Use only non-sparking tools.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves and eye protection/face protection.
If on skin: Wash with plenty of water.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center/doctor if you feel unwell.
Store in a well-ventilated place. Keep cool.
In case of fire: Use sand, earth, extinguishing powder or foam to extinguish.
Dispose of contents/container to hazardous or special waste collection point.
Store locked up.

3. Composition/information on ingredients

Mixtures

Chemical characterization

Acrylate

Relevant ingredients

CAS No	Components	Quantity
80-62-6	methyl methacrylate	50 - 100%
2082-81-7	1,4-butandiol dimethacrylate, Tetramethylene dimethacrylate	1 - 5 %

4. First-aid measures

Description of first aid measures

General information

Take off contaminated clothing and wash it before reuse. IF exposed or concerned: Get medical advice/attention.

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

IF ON SKIN: Wash with plenty of soap and water. Take off immediately all contaminated clothing and wash it before reuse.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink 1 glass of of water.

Most important symptoms and effects, both acute and delayed

Headache, Dizziness, Causes skin and eye irritation. Skin sensitisation.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. When in doubt or if symptoms are observed, get medical advice.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO_2), Foam, Extinguishing powder. Water spray jet

Unsuitable extinguishing media

Water.

Specific hazards arising from the chemical

Highly flammable. Vapors may form explosive mixtures with air.

Special protective equipment and precautions for fire-fighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit. Use water spray/stream to protect personnel and to cool endangered containers.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Supress gases/vapors/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Use only non-sparking tools.
Do not allow to enter into surface water or drains.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fume/vapor/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Avoid contact with skin, eyes and clothes. Wear protective gloves/protective clothing and eye/face protection.

Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.
Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Reference to other sections

Safe handling: see section 7
Personal protection equipment (PPE): see section 8
Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray. Keep container tightly closed. Ensure adequate ventilation of the storage area.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapors may form explosive mixtures with air. Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Further information on handling

Put lids on containers immediately after use. Always close containers tightly after the removal of product. Keep cool. Protect from sunlight.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep

away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in a cool dry place. Protect from sunlight.

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No	Substance	ppm	mg/m³		Category	Origin
80-62-6	Methyl methacrylate	100	410		TWA (8 h)	PEL
		100	410		TWA (8 h)	REL

Additional advice on limit values

DNEL-/PNEC-values
Critical component: / Exposure route: / DNEL worker:
Methyl methacrylate Long-term – inhalation, local effects 210mg/m³
Long-term – inhalation, systemic effects 210mg/m³
Methyl methacrylate Long-term - dermal, local effects 13,67 mg/kg/d
Long-term - dermal, systemic effects 13,67 mg/kg/d
Methyl methacrylate Long-term - oral, systemic effects -
Methyl methacrylate PNEC Water Long-term (repeated) < 0,94 mg/l
Methyl methacrylate PNEC Soil Long-term (repeated) -
Methyl methacrylate air Long-term (repeated) -

Exposure controls






Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation should be used if possible. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Ensure that fresh air is supplied to the breathing zone of the operator and exhaust air is removed in his back! Use an " effective exhaust ventilation system" according to 2001/59/EC (Annex 7A)..

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
General information:

Skin protection

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Wear anti-static footwear and clothing

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection necessary at:
high concentrations (air limit values) (Methyl methacrylate)

Environmental exposure controls

Do not allow to enter into surface water or drains.
Do not allow to enter into soil/subsoil.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Color:	colorless
Odor:	characteristic

		Test method
Melting point/freezing point:	not applicable	
Boiling point or initial boiling point and boiling range:	100 °C	
Flammability:		not determined
Lower explosion limits:	2,1 vol. %	
Upper explosion limits:	12,5 vol. %	
Flash point:	10 °C	calculated.
Auto-ignition temperature:	430 °C	calculated.
Viscosity / kinematic:	0,06 mm²/s	
Water solubility: (at 20 °C)	15,9 g/l	
Solubility in other solvents		
miscible with most organic solvents		
Vapor pressure: (at 20 °C)	37 hPa	
Density:	0,95 g/cm³	
Relative vapour density: (at 20 °C)	3,4	

Other information

Information with regard to physical hazard classes

Explosive properties

The accumulation in lowlying or closed rooms can cause increased danger of fire and explosion.

Sustained combustibility: No data available

Oxidizing properties

Not oxidising.

Other safety characteristics

Sublimation point:	not applicable
Softening point:	not applicable
Viscosity / dynamic: (at 20 °C)	0,6 mPa·s

10. Stability and reactivity

Reactivity

Highly flammable.

Chemical stability

The product is stable under storage at normal ambient temperatures. May cause decomposition by long-term light influence. Stabiliser can lose its effectiveness if stored over a long period of time.

Possibility of hazardous reactions

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

> 125mL:

Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapors may form explosive mixtures with air. Do not mix with acids.

Incompatible materials

Reducing agent
Heavy metals
Peroxides
Oxidising agent

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

Toxicocinetics, metabolism and distribution

Data apply to the main component.

Acute toxicity

Conclusive data but not sufficient for classification

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 5000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Components					
	Exposure route	Dose		Species	Source	Method
80-62-6	methyl methacrylate					
	oral	LD50 mg/kg	7872	Rat	RTECS	
	dermal	LD50 mg/kg	> 5000	Rabbit	REACH Dossier	OECD 402
	inhalation (4 h) vapour	LC50	29,8 mg/l	Rat	REACH Dossier	standard acute metho
2082-81-7	1,4-butandiol dimethacrylate, Tetramethylene dimethacrylate					
	oral	LD50 mg/kg	10066	Rat	REACH Dossier	OECD 401
	dermal	LD50 mg/kg	> 3000	Rabbit	REACH Dossier	not specified

Carcinogenicity (OSHA): No ingredient of this mixture is listed.
Carcinogenicity (IARC): Methyl methacrylate (CAS 80-62-6) is listed in group 3.
Carcinogenicity (NTP): No ingredient of this mixture is listed.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

The mixture is classified as hazardous according to Directive 1999/45/EC.

Practical experience

May cause an allergic skin reaction. May produce an allergic reaction.

Further information

Repeated exposure may cause skin dryness or cracking. Frequently or prolonged contact with skin may cause dermal irritation. Do not breathe gas/vapour/aerosol.

12. Ecological information

Ecotoxicity

Conclusive data but not sufficient for classification

Persistence and degradability

Readily biodegradable (according to OECD criteria). Photo-chemical elimination Data apply to the main component.
The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Mobility in soil

The product has not been tested. On the basis of existing data about the elimination/degradation and bioaccumulation potential longer term damage to the environment cannot be ruled out. If product enters soil, it will be mobile and may contaminate groundwater.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other adverse effects

There are no data available on the preparation/mixture itself.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Contaminated packages must be completely emptied and can be re-used following proper cleaning. Non-contaminated packages may be recycled. Packing which cannot be properly cleaned must be disposed of.

14. Transport information

U.S. DOT 49 CFR 172.101

UN number or ID number:	UN 1247
Proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3



Marine transport (IMDG)

UN number or ID number:	UN 1247
UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3



Special Provisions:	386
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:	UN 1247
UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3



Special Provisions:	A209
Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

Warning: Combustible liquid.

15. Regulatory information

U.S. Regulations

National regulatory information

SARA Section 304 CERCLA:

Methyl methacrylate (80-62-6): Reportable quantity = 1,000 (454) lbs. (kg)

SARA Section 311/312 Hazards:

Methyl methacrylate (80-62-6): Fire hazard, Immediate (acute) health hazard

1,4-butandiol dimethacrylate, Tetramethylene dimethacrylate (2082-81-7): Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Methyl methacrylate (80-62-6): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(b):

Methyl methacrylate (80-62-6)

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

:

:

16. Other information

Changes

Revision date: 01/28/2025

Revision No: 89

This data sheet contains changes from the previous version in section(s): 1,2,4,6,7,8,9,10,11,12,14,15.

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 Harmonized 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
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Key literature references and sources for data

ECHA - REACH Dossier
TOXNET - Hazardous Substances Data Bank (HSDAB) & ChemIDplus
Environmental Protection Agency (EPA) - Chemistry Dashboard
OECD SIDS
Danish QSAR Database
Crit Rev Toxicol. 2011 Mar; 41(3): 230–268: Methyl methacrylate and respiratory sensitization: A Critical review

Other data

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)