Safety Data Sheet

according to Regulation (EC) No 1907/2006

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

1.1. Product identifier

Weropress® LT

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

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name:	Merz Dental GmbH	
Street:	Kieferweg 1	
Place:	D-24321 Lütjenburg (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:	Qualitätssicherung (Quality Assurance)	

1.4. Emergency telephone number:

+49-(0)551-19240 (Giftinformationszentrum-Nord)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Flammable liquid: Flam. Liq. 2
Skin corrosion/irritation: Skin Irrit. 2
Respiratory or skin sensitisation: Skin Sens. 1
Specific target organ toxicity - single exposure: STOT SE 3
Hazard Statements:
Highly flammable liquid and vapour.
Causes skin irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate
1,4-butandiol dimethacrylate

Signal word: Danger

Pictograms:

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

P262	Do not get in eyes, on skin, or on clothing.
P233	Keep container tightly closed.
P280	Wear protective gloves and eye/face protection.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

Acrylate Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate			50 - < 100 %
	201-297-1	607-035-00-6		
	Flam. Liq. 2, STOT SE 3, Skin Irrit. 2, Skin Sens. 1; H225 H335 H315 H317			
2082-81-7	1,4-butandiol dimethacrylate			5 - < 50 %
	Skin Sens. 1B; H317			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

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

After inhalation

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

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary. In case of skin irritation, consult a physician. Remove contaminated, saturated clothing immediately.

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.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

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

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

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2). Foam. Extinguishing powder. Water spray jet

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours can form explosive mixtures with air. May be released in case of fire: corbon dioxide, organic products of decomposition.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Keep container tightly closed. Ensure adequate ventilation of the storage area.
Filling and transfer:
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.
Avoid: generation/formation of aerosols.
Transport information: Protect containers against damage.

Advice on protection against fire and explosion

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

Further information on handling

Put lids on containers immediately after use. Always close containers tightly after the removal of product.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. 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.

Advice on storage compatibility

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
80-62-6	Methyl methacrylate	50	208		TWA (8 h)	WEL
		100	416		STEL (15 min)	WEL

Additional advice on limit values

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

8.2. Exposure controls




Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.
For exposure monitoring, the following may be used: direct-reading Photo Ionisation Detector Dosimeters (e.g. ToxiRAE made by Ansyco), short-term measuring tubes for methyl acrylate (e.g. made by Dräger) or pumps with adsorption tubes, and subsequent GC analysis by an accredited institute.
Measuring method: - OSHA 94 - NIOSH 2537 - DIN EN 482 - DIN EN 689

Protective and hygiene measures

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 or drink.

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. Protective gloves made from butyl rubber (impermeable up to 60 min with material thickness of >0.5mm; EN 374), nitrile (impermeable up to 10 min with material thickness of >0.33mm); natural

latex (impermeable up to 10 min with material thickness of >1mm). Since abnormal conditions often arise in practice, these details can only be an orientation guide when choosing suitable chemical protective gloves. In particular, these details do not replace any suitability tests carried out by the end-consumer.
General information:
Protective gloves should be changed regularly, particularly after intensive contact with the product. A suitable type of glove must be selected for each work place.
Protect skin by using skin protective cream.

Skin protection

Wear safety working clothes (lab coat) and closed shoes. .
Wear anti-static footwear and clothing

Respiratory protection

Respiratory protection necessary at:
high concentrations (air limit values) (Methyl methacrylate)
In case of fire: Wear self-contained breathing apparatus.

Environmental exposure controls

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	ester-like

		Test method
pH-Value:	not applicable	
Changes in the physical state		
Melting point:	not determined	
Initial boiling point and boiling range:	98,6 - 99,8 °C	EEC. A2
Sublimation point:	not applicable	
Softening point:	not applicable	
Pour point:	not applicable	
not determined:		
Flash point:	13,5 °C	DIN EN ISO 13736
Sustaining combustion:	Sustaining combustion	
Flammability		
Solid:	not determined	
Gas:	not determined	
Explosive properties		
In use, may form flammable/explosive vapour-air mixture.		
Lower explosion limits:	2,1 vol. %	
Upper explosion limits:	12,5 vol. %	
Ignition temperature:	290 °C	
Auto-ignition temperature		
Solid:	not determined	
Gas:	not determined	
Decomposition temperature:	not determined	
Oxidizing properties		
Not oxidizing.		

Vapour pressure: (at 20 °C)	38,7 hPa	
Vapour pressure:	not determined	
Density:	0,956 g/cm³	DIN 51757
Bulk density:	not applicable	
Water solubility:	not determined	

Solubility in other solvents

miscible with most organic solvents

Viscosity / dynamic:	not determined	
Viscosity / kinematic:	not determined	
Flow time:	not determined	
Vapour density:	not determined	
Evaporation rate:	not determined	
Solvent separation test:	not determined	

9.2. Other information

Solid content:	0,2 %	

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

10.4 / 10.5

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. Heat (> 30 °C) or UV light should be avoided in order to prevent a spontaneous and explosive polymerisation and also to prevent the accompanying generation of heat.

10.5. Incompatible materials

IIn the presence of radical formers (e.g. peroxides, persulfates), reducing or oxidising substances and/or heavy metal ions and other polymerisation initiators as well as polymethyl methacrylates (polymer powder), polymerisation takes place under heat generation.

10.6. Hazardous decomposition products

No hazardous reaction when handled and stored according to provisions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Conclusive data but not sufficient for classification

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate					
	oral	LD50 mg/kg	> 5000	Rat	OECD 401	
	dermal	LD50 mg/kg	> 5000	Rabbit		
	inhalative (4 h) vapour	LC50	29,8 mg/l	Rat		
2082-81-7	1,4-butandiol dimethacrylate					
	oral	LD50 mg/kg	10066	Rat	REACH Dossier	OECD 401
	dermal	LD50 mg/kg	> 3000	Rabbit	REACH Dossier	not specified

SECTION 12: Ecological information

12.1. Toxicity

Conclusive data but not sufficient for classification

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate						
	Acute fish toxicity	LC50 mg/l	> 79	96 h	Oncorhynchus mykiss (Rainbow trout)	OECD 203	
	Acute algae toxicity	ErC50 mg/l	> 110	72 h	Selenastrum capricornutum	OECD 201	
	Acute crustacea toxicity	EC50	69 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202	
2082-81-7	1,4-butandiol dimethacrylate						
	Acute fish toxicity	LC50 mg/l	5,861	96 h	Pimephales promelas (fathead minnow)	EpiSuite QSAR tool	Quantitative structure-acivity relationship (QSAR)

12.2. Persistence and degradability

Readily biodegradable (according to OECD criteria). Photo-chemical elimination

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate			
	OECD 301C/ ISO 9408/ EEC 92/69/V, C.4-F	94 %	14	SDB Evonik
	Readily biodegradable (according to OECD criteria).			
2082-81-7	1,4-butandiol dimethacrylate			
	OECD 310 (Headspace Test)	76 - 92 %	28	REACH Dossier
	Biodegradable.			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate	1,38
2082-81-7	1,4-butandiol dimethacrylate	3,1

BCF

CAS No	Chemical name	BCF	Species	Source
2082-81-7	1,4-butandiol dimethacrylate	59,21	n/n	EpiSuite QSAR tool

12.4. 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.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

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.

Waste disposal number of waste from residues/unused products

070108 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; other still bottoms and reaction residues; hazardous waste

Waste disposal number of used product

070108 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; other still bottoms and reaction residues; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1247

14.2. UN proper shipping name: METHYL METHACRYLATE MONOMER, STABILIZED

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3

Classification code: F1

Special Provisions: 386

Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	339
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number:	UN 1247
14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3

Classification code:	F1
Special Provisions:	386
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

14.1. UN number:	UN 1247
14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es):	3
14.4. 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)

14.1. UN number:	UN 1247
14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es):	3
14.4. 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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water contaminating class (D):	2 - clearly water contaminating
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s):
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

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%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary responsible for adhering to existing laws and regulations.
Data sources:
Safety Data Sheet Supplier

OECD - SIDS
EpiSuite - QSAR tool
ECHA - Registration Dossier