

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : RESINE KM-EM LIQUIDE
Product code : 04150 - 04152.
LIQUID RESIN KM-EM / HÄRTER KM-EM

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

Resin coating

1.3. Details of the supplier of the safety data sheet

Registered company name : PRESI S.A.
Address : 11 Rue du vercors.38320.EYBENS.France.
Telephone : +33 (0)4.76.72.00.21. Fax : +33 (0)4.76.72.05.84.
presi@presi.com
www.presi.com

1.4. Emergency telephone number : +33 (0)1.45.42.59.59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Flammable liquid, Category 2 (Flam. Liq. 2, H225).
Skin irritation, Category 2 (Skin Irrit. 2, H315).
Skin sensitisation, Category 1 (Skin Sens. 1, H317).
Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H335).
This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS02



GHS07

Signal Word :

DANGER

Product identifiers :

EC 201-297-1 METHYL METHACRYLATE

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 - Prevention :

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

RESINE KM-EM LIQUIDE - 04150 - 04152

Precautionary statements - Response :

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

Precautionary statements - Storage :

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
CAS: 80-62-6 EC: 201-297-1 REACH: 01-2119452498-28 METHYL METHACRYLATE	GHS07, GHS02 Dgr Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	D [1]	50 \leq x % < 100
CAS: 99-97-8 EC: 202-805-4 N,N-DIMETHYL-P-TOLUIDINE	GHS06, GHS08 Dgr Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT RE 2, H373 Aquatic Chronic 3, H412	C	1 \leq x % < 2.5

(Full text of H-phrases: see section 16)

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation :

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

In the event of splashes or contact with eyes :

Rinse immediately with plenty of water, also under the eyelids

Consult a physician if necessary

In the event of splashes or contact with skin :

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.



RESINE KM-EM LIQUIDE - 04150 - 04152

If the event contact with skin : Wash immediatly and abundantly with poly-ethyleneglycol then with a lot of water

In the event of swallowing :

Do not give the patient anything orally.

Seek medical attention immediately, showing the label.

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

No data available.

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

Treat symptomatically. contact a physician.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

Suitable methods of extinction

In the event of a fire, use :

- foam
- powder
- carbon dioxide (CO₂)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction

In the event of a fire, do not use :

- water

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

Fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.



RESINE KM-EM LIQUIDE - 04150 - 04152

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Fire prevention :

Handle in well-ventilated areas.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Prevent the accumulation of electrostatic charges with connections to earth.

The mixture can become electrostatically charged : always earth during decanting operations. Wear antistatic shoes and clothing and floors should be electrically conductive.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

Don't store with : oxidizing agents, pyrophoric and self-heating substances

Storage

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

Avoid accumulation of electrostatic charges.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m3	VME-ppm	VLE-mg/m3	VLE-ppm	Notes
80-62-6	-	50	-	100	-

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

RESINE KM-EM LIQUIDE - 04150 - 04152

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
80-62-6	50 ppm	100 ppm		SEN; A4	

- Germany - AGW (BAuA - TRGS 900, 29/01/2018) :

CAS	VME :	VME :	Excess	Notes
80-62-6		50 ppm 210 mg/m ³		2(I)

- Canada / Ontario (Control of exposure to biological or chemical agents, regulation 491/2009) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
80-62-6	50 ppm	100 ppm	-	-	-

- Canada / Quebec (Regulations on occupational health and safety) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
80-62-6	50 ppm 205 mg/m ³			S	

- France (INRS - ED984 :2016) :

CAS	VME-ppm :	VME-mg/m ³ :	VLE-ppm :	VLE-mg/m ³ :	Notes :	TMP No :
80-62-6	50	205	100	410	-	82

- Japan (JSOH, 11/05/2017) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
80-62-6	8,3 mg/m ³				

- Switzerland (SUVAPRO 2017) :

CAS	VME	VLE	Valeur plafond	Notations
80-62-6	50 ppm 210 mg/m ³	100 ppm 420 mg/m ³		S SSC

- USA / NIOSH IDLH (National Institute for Occupational Safety and Health, Immediately Dangerous to Life or Health Concentrations) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
80-62-6	100 ppm 410 mg/m ³				

- UK / WEL (Workplace exposure limits, EH40/2005, 2011) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
80-62-6	50 ppm 208 mg/m ³	100 ppm 416 mg/m ³			

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

METHYL METHACRYLATE (CAS: 80-62-6)

Final use:

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Long term systemic effects.
17 mg/kg body weight/day

Inhalation.
Long term systemic effects.
208 mg of substance/m³

Predicted no effect concentration (PNEC):

METHYL METHACRYLATE (CAS: 80-62-6)

Environmental compartment:
PNEC :

Fresh water.
0.94 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

RESINE KM-EM LIQUIDE - 04150 - 04152

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Recommended properties :

- Impervious gloves in accordance with standard EN374

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid breathing vapours.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- A1 (Brown)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state : Fluid liquid.

Important health, safety and environmental information

pH : Not relevant.

Boiling point/boiling range : 100.5 °C

Flash Point : 10.00 °C.

Explosive properties, lower explosivity limit (%) : 2.1 vol %

Explosive properties, upper explosivity limit (%) : 12.5 vol %

Vapour pressure (50°C) : Not relevant.

Vapour density : 3.5 (20 °C)

Density : 0.949 g/cm³ (15.5 °C)

Water solubility : Insoluble. 12.5 g/L



RESINE KM-EM LIQUIDE - 04150 - 04152

Partition coefficient: n-octanol/water :	1.38
Viscosity :	0.53 mPa.s (20 °C)
Melting point/melting range :	-48 °C
Self-ignition temperature :	Not relevant.
Decomposition point/decomposition range :	Not relevant.

9.2. Other information

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

Fire risk

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- accumulation of electrostatic charges.
- heating
- heat
- flames and hot surfaces

10.5. Incompatible materials

Keep away from :

- oxidising agents
- pyrophoric and self-heating substances

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

May cause an allergic reaction by skin contact.

11.1.1. Substances

Acute toxicity :

N,N-DIMETHYL-P-TOLUIDINE (CAS: 99-97-8)

Oral route :	LD50 = 100 mg/kg
Dermal route :	LD50 = 300 mg/kg
Inhalation route (n/a) :	LC50 = 1.4 mg/l Species : Rat Duration of exposure : 4 h

METHYL METHACRYLATE (CAS: 80-62-6)

Oral route :	LD50 > 5000 mg/kg Species : Rat
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RESINE KM-EM LIQUIDE - 04150 - 04152

OECD Guideline 401 (Acute Oral Toxicity)

Dermal route : LD50 > 5000 mg/kg
Species : Rabbit

Inhalation route (n/a) : LC50 = 29.8 mg/l
Species : Rat
Duration of exposure : 4 h

Skin corrosion/skin irritation :

Irritating to skin

Respiratory or skin sensitisation :

Can cause a skin allergy (Methyl methacrylate)

Specific target organ systemic toxicity - repeated exposure :

Can irritate the airways (Methyl methacrylate)

11.1.2. Mixture

Acute toxicity :

Oral route : No observed effect.
Species : Rat
LD50 = 7870 mg/kg
Species : Rabbit
LD50 > 5000 mg/kg

Inhalation route (Vapours) : No effect.
Species : Rat
Duration of exposure : 4 h
LC50 = 78 mg/l

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

N,N-DIMETHYL-P-TOLUIDINE (CAS: 99-97-8)

Fish toxicity : LC50 = 52 mg/l
Species : Oncorhynchus mykiss
Duration of exposure : 96 h

METHYL METHACRYLATE (CAS: 80-62-6)

Fish toxicity : LC50 > 79 mg/l
Species : Oncorhynchus mykiss
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity : EC50 69 mg/l
Species : Daphnia magna
Duration of exposure : 48 h
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

NOEC = 37 mg/l
Species : Daphnia magna
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

RESINE KM-EM LIQUIDE - 04150 - 04152

Algae toxicity :

ECr50 > 110 mg/l
Species : *Selenastrum capricornutum*
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

N,N-DIMETHYL-P-TOLUIDINE (CAS: 99-97-8)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

METHYL METHACRYLATE (CAS: 80-62-6)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

12.3.1. Substances

N,N-DIMETHYL-P-TOLUIDINE (CAS: 99-97-8)

Octanol/water partition coefficient : log K_{ow} = 2.81

METHYL METHACRYLATE (CAS: 80-62-6)

Octanol/water partition coefficient : log K_{ow} = 1.38

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

WGK 1 : Slightly hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

RESINE KM-EM LIQUIDE - 04150 - 04152

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2017 - IMDG 2016 - ICAO/IATA 2017).

14.1. UN number

1247

14.2. UN proper shipping name

UN1247=METHYL METHACRYLATE MONOMER, STABILIZED

14.3. Transport hazard class(es)

- Classification :



3

14.4. Packing group

II

14.5. Environmental hazards

-

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	3	F1	II	3	339	1 L	386	E2	2	D/E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ
	3	-	II	1 L	F-E,S-D	386	E2

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	3	-	II	353	5 L	364	60 L	A209	E2
	3	-	II	Y341	1 L	-	-	A209	E2

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

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

No data available.

SECTION 15 : REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2018/669 (ATP 11)

- Container information:

No data available.

- Particular provisions :

No data available.

- German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

WGK 1 : Slightly hazardous for water.

15.2. Chemical safety assessment

No data available.



RESINE KM-EM LIQUIDE - 04150 - 04152

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure .
H412	Harmful to aquatic life with long lasting effects.

Abbreviations :

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS02 : Flame

GHS07 : Exclamation mark

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.