

Safety Data Sheet

according to 1907/2006/EC, Article 31

Date of creation::
Version: 5.0
Revised: 23.02.2018

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92361 Berggau
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RALMO[®]-Spray primer

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

1.1 Product identifier

Trade name: RALMO[®]-Spray Primer

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

1.2.1 Relevant identified uses:

Primer

1.3 Details of the supplier providing the safety data sheet:

Company name: Ralmont GmbH
Street: Keltenring 16
Place: D-92361 Berggau
Phone: +49 (0)9181/516 40-20
E-Mail: info@ralmont.de - Contact person: Mr. Niklas Weber
Internet: <http://www.ralmont.de>

1.4 Emergency number: Bonn Poison Control Center, 24 hours a day, Tel. +49(0)228-19240

Section 2: Possible hazards

2.1 Classification of the substance or mixture: (REGULATION (EC) No 1272/2008)

Aerosol 1;	H222, H229
Skin Irrit. 2;	H315
STOT SE 3;	H336
Aquatic Chronic 2;	H411

2.2 Label elements:

Label elements (CLP)



Signal word: Danger

Hazard statements:

H222	Extremely flammable aerosol.
H229	Pressurized container: May burst if heated.
H315	Causes skin irritation.
H336	May cause drowsiness and dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102	Keep out of the reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Do not smoke.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.

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P304 + P340
 P410 + P412
 P501

IF INHALED: Remove person to fresh air and ensure unobstructed breathing.
 Protect from sunlight and do not expose to temperatures exceeding 50°C.
 Dispose of contents / container in accordance with local / regional / national / international regulations.

Contains: Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic Naphtha (petroleum), hydrotreated light, pentane.

Additional text:
 /

2.3 Other hazards:

No data available.

Section 3: Composition/Information on Ingredients

3.1 Mixture:

Description:	Content (% m/m):	CAS: EC: Index:	Classification (1272/2008/EG):
Naphtha (petroleum), hydrotreated, light	10 – 25	64742-49-0 265-151-9 649-328-00-1	Flam. Liq. 2; H225, STOT SE 3; H336, Asp. Tox. 1; H304, Skin Irrit. 2; H315 Aquatic Chronic 2; H411
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	10 – 25	/ 927-510-4 /	Flam. Liq. 2; H225, Asp. Tox. 1; H304, Skin Irrit. 2; H315, STOT SE 3; H336, Aquatic Chronic 2; H411
Pentane	10 – 25	109-66-0 203-692-4 601-006-00-1	Flam. Liq. 2; H225, Asp. Tox. 1; H304, STOT SE 3; H336, Aquatic Chronic 2; H411
Butane	10 – 25	106-97-8 203-448-7 601-004-00-0	Flam. Gas. 1; H220, Press. Gass; H280
Dimethyl ether	10 – 25	115-10-6 204-065-8 603-019-00-8	Flam. Gas. 1; H220, Press. Gass; H280
Ethyl methyl ketone	2,5 – 10	78-93-3 201-159-0 606-002-00-3	Flam. Liq. 2; H225, Eye Irrit. 2; H319, STOT SE 3; H336

Section 4: First aid measures

4.1 Description of first aid measures:

General information:

Immediately remove clothing contaminated with product.

After inhalation:

Remove affected person to fresh air, loosen constricting clothing and keep at rest. In case of breathing difficulties, call a doctor immediately.

After skin contact:

Change contaminated clothing. After contact with skin, rinse immediately with plenty of soap and water. If skin irritation occurs, seek medical attention.

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After eye contact:

Immediately flush with running water for 10 to 15 minutes with the eyelids open. If eye irritation occurs, consult an ophthalmologist.

After ingestion:

Do not induce vomiting, seek medical attention immediately and bring this sheet or label.

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

No data available.

4.3 Indication of any immediate medical attention or special treatment needed:

No data available.

Section 5: Fire fighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

Dry chemical, foam, carbon dioxide (CO₂), water mist.

Unsuitable extinguishing media:

Water jet

5.2 Special hazards arising from the substance or mixture:

Special fire-fighting hazards:

Do not use a full stream of water to suppress dispersion and spread of fire. Inhalation of decomposition products may cause damage to health. Formation of hazardous/toxic vapors possible in case of fire/high temperatures.

5.3 Advice for firefighters:

Special protective equipment for firefighters:

In case of fire wear self-contained breathing apparatus.
Use personal protective equipment.

Further information:

Usual measures in case of fires with chemicals. Adjust extinguishing measures to the environment. Do not inhale explosion and fire gases.
Use water spray to cool closed containers.
Collect contaminated extinguishing water separately. Do not allow to enter sewage system. Fire residues and contaminated extinguishing water must be disposed of in accordance with local official regulations. Watch out for re-ignition. Due to the high vapor pressure, there is a risk of bursting of the vessels if the temperature rises.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

See protective measures in sections 7 and 8. Use personal protective equipment. Remove all sources of ignition.
Avoid contact with eyes. Provide adequate ventilation, especially in enclosed areas.
Evacuate personnel immediately to a safe place.
Avoid inhalation of vapors or mists. Accumulating vapors may form explosive concentrations, ventilate, Vapors may accumulate in low lying areas.

6.2 Environmental precautions:

Do not allow to reach surface water or sewage system. Prevent further leakage or spillage if this can be done without danger.
In case of contamination of waters or sewage system, inform the competent authorities.

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6.3 Methods and material for containment and cleaning up:

Contain and absorb spilled material with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite), and place in containers for disposal in accordance with local / national legal requirements. Clean contaminated surfaces thoroughly.

6.4 Reference to other sections:

Cf. sections: 7, 8, 11, 12 and 13.

Section 7: Handling and storage

7.1 Precautions for safe handling:

Precautions for safe handling:

Stock levels in the workplace should be limited. Use only in well ventilated use only in well ventilated areas.

Do not inhale vapors or spray mist. Avoid contact with eyes and skin.

Do not spray against flame or onto glowing object. Avoid formation of flammable or explosive solvent vapors in the air and avoid exceeding AGW limits. Take measures against electrostatic charges. For personal protective equipment see section 8.

Information about fire and explosion protection: Usual measures of preventive fire protection. Vapors may form explosive mixtures with air. Keep away from heat and ignition sources. Do not smoke. Use spark-proof tools. Electrical equipment must be explosion-proof in accordance with the standards.

Dust explosion class:

Not applicable.

7.2 Conditions for safe storage, taking into account incompatibilities:

Requirements for storerooms and receptacles: Store in original container. CAUTION: Aerosol is under pressure. Keep away from direct sunlight and temperatures above 50 °C. Do not open by force or throw into a fire, even after use. Do not spray on flames or red-hot objects. Keep container tightly closed in a dry, cool and well-ventilated place. Observe storage regulations for aerosols!

Information on storage together:

Keep away from food, beverages and animal feed. Do not store together with oxidizing and spontaneously combustible substances.

Storage class (LGK):

2B, pressurized gas packages (aerosol packages).

Other information:

No decomposition when stored and used as directed.

7.3 Specific end use(s):

Specific use(s):

No data available.

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Section 8: Exposure controls/personal protective equipment

8.1 Parameters to be monitored:

8.1.1 Occupational exposure limit values:

Description	CAS-Nr.	Occupational exposure ml/m ³ (ppm)	mg/m ³	Peak limitation Overrun factor	Basis
Naphtha (petroleum), hydrotreated, light	64742-49-0	/	600	2 (II)	AGS
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	/	/	1000	2 (II)	AGS
Ethyl methyl ketone	78-93-3	200	600	1 (I)	DFG, EU, H, Y
Pentane	109-66-0	1000	3000	2 (II)	DFG, EU, Y
Butane	106-97-8	1000	2400	4 (II)	DFG
Dimethyl ether	115-10-6	1000	1900	8 (II)	DFG, EU

8.1.2 DNEL- and PNEC-Values: 8.2 Exposure controls and monitoring:

Substance	Type	Type of exposure	Exposure time	Value
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (Occupation)	Inhalation	Long term - systemic effects	2085 mg/m ³
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (Occupation)	Dermal	Long term - systemic effects	300 mg/kg bw/day
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (Consumer)	Inhalation	Long term - systemic effects	447 mg/m ³
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (Consumer)	Dermal	Long term - systemic effects	149 mg/kg bw/day
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (Consumer)	Oral	Long term - systemic effects	149 mg/kg bw/day
Pentane	DNEL (Occupation)	Inhalation	Long term - systemic effects	3000 mg/m ³
Pentane	DNEL (Occupation)	Dermal	Long term - systemic effects	432 mg/kg bw/day
Pentane	DNEL (Consumer)	Inhalation	Long term - systemic effects	643 mg/m ³
Pentane	DNEL (Consumer)	Dermal	Long term - systemic effects	214 mg/kg bw/day
Pentane	Consumer	Oral	Long term - systemic effects	214 mg/kg bw/day
Pentane	PNEC	Freshwater		0.23 mg/l
Pentane	PNEC	Seawater		0.23 mg/l
Pentane	PNEC water (temporary release)			0.88 mg/l
Pentane	PNEC Wastewater Treatment Plant (STP)			3.6 mg/l
Pentane	PNEC	Freshwater sediment		1.2 mg/kg dwt
Pentane	PNEC	Seawater sediment		1.2 mg/kg dwt
Pentane	PNEC	Soil		0.55 mg/kg dwt
Ethyl methyl ketone	DNEL (Occupation)	Inhalation	Long term - systemic effects	600 mg/m ³
Ethyl methyl ketone	DNEL (Occupation)	Dermal	Long term - systemic effects	1161 mg/kg bw/day

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Ethyl methyl ketone	DNEL (Consumer)	Inhalation	Long term - systemic effects	106 mg/m ³
Ethyl methyl ketone	DNEL (Consumer)	Dermal	Long term - systemic effects	412 mg/kg bw/day
Ethyl methyl ketone	DNEL (Consumer)	Oral	Long term - systemic effects	31 mg/kg bw/day
Ethyl methyl ketone	PNEC	Freshwater		55.8 mg/l
Ethyl methyl ketone	PNEC	Seawater		55.8 mg/l
Ethyl methyl ketone	PNEC	Water (temporary release)		55.8 mg/l
Ethyl methyl ketone	PNEC	Wastewater treatment plant (STP)		709 mg/l
Ethyl methyl ketone	PNEC Freshwater sediment		284,74 mg/kg dwt	
Ethyl methyl ketone	PNEC	Seawater Sediment		284.7 mg/kg dwt
Ethyl methyl ketone	PNEC	Soil		22.5 mg/kg dwt
Ethyl methyl ketone	PNEC Freshwater		1 g/kg food	
Dimethyl ether	DNEL (Occupation)	Inhalation	Long term - systemic effects	1894 mg/m ³
Dimethyl ether	DNEL (Consumer)	Inhalation	Long-term - systemic effects	471 mg/m ³
Dimethyl ether	PNEC	Fresh water 0,		155 mg/l
Dimethyl ether	PNEC	Sea water		0.016 mg/l
Dimethyl ether	PNEC	Water (temporary release)		1.549 mg/l
Dimethyl ether	PNEC	Wastewater treatment plant (STP)		160 mg/l
Dimethyl ether	PNEC	Freshwater sediment		0.681 mg/kg dwt
Dimethyl ether	PNEC	Seawater sediment		0.069 mg/kg dwt
Dimethyl ether	PNEC	Soil		0.045 mg/kg dwt

8.2 Exposure controls:

Personal protective equipment:

- Eye protection: Tight-fitting safety goggles according to EN 166.
- Hand protection: Solvent resistant protective gloves according to EN 374. Glove material: Nitrile rubber, breakth rough time (maximum wearing time): >480 min and thickness 0.5 mm. The information of the manufacturer of the protective gloves on permeabilities and breakthrough times must be observed.
- Skin and body protection: Flame retardant antistatic protective clothing. Select body protection according to the amount and concentration of the hazardous substance at the workplace.
- Respiratory protection: A respirator must be worn if the occupational exposure limits (OEL) are exceeded. Filter AX, identification color brown, according to EN 371. Keep self-contained breathing apparatus ready for emergencies.
- Hygiene measures: Observe the usual precautionary measures when handling chemicals. General industrial hygiene measures. Do not inhale aerosol. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke while working. Wash hands before breaks and at the end of work. Follow skin protection plan. Wash contaminated clothing before reuse.

Environmental exposure controls and monitoring:

- General information: Do not allow to enter surface water or sewage system. Prevent further leakage or Prevent spillage if it can be done without risk. In case of contamination of Inform the competent authorities in case of contamination of water or sewage system.

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Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

	Value	Unit	At	Method	Comment
Shape	Aerosol				
Color	Colorless, clear to milky				
Odor	Characteristic				
Flash point	< 0	°C			Active ingredient
Boiling point	36	°C			Active ingredient
Ignition temperature	250	°C			Active ingredient
Lower explosion limit	0,9	Vol. %			Active ingredient
Upper explosion limit	2,3	Vol. %			Active ingredient
Density	0,738	g/cm ³	20 °C		Active ingredient
Vapor pressure	868	mbar	20 °C		Active ingredient
Water solubility	Insoluble				Active ingredient
Organic solvents	55	%			

9.2 Other information:

No data available.

Section 10: Stability and Reactivity

10.1 Reactivity:

No data available.

10.2 Chemical stability:

The product is chemically stable.

10.3 Possibility of hazardous reactions:

No decomposition if stored and used as directed. Vapors may form explosive mixtures with air. Because of the high vapor pressure, there is a risk of bursting of the containers if the temperature rises.

10.4 Conditions to avoid:

Heat, flames and sparks.

10.5 Incompatible materials:

No data available.

10.6 Hazardous decomposition products:

Hazardous decomposition products: In case of fire/high temperatures, formation of hazardous/toxic vapors possible.

Thermal decomposition: No data available.

11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:

Acute oral toxicity:

Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	LD50	>8 ml/kg (rat).
Ethyl methyl ketone	LD50	

Acute inhalation toxicity:

Ethyl methyl ketone	LC50	>20 ml/l
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	LC50	>23.3 mg/l (rat, 4h)

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Acute dermal toxicity:

Ethyl methyl ketone	LD50	>2000 mg/kg
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	LD50	>4 ml/kg (rat)

Skin corrosion/irritation.

Irritating to skin:

Serious eye damage/irritation.

May be irritating to eyes.

Respiratory/skin sensitization

May cause sensitization by skin contact and inhalation.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Teratogenicity:

No data available.

Additional Information:

Symptoms of increased exposure may include headache, dizziness, fatigue, nausea and vomiting.
 Vapors may cause drowsiness and dizziness.

Section 12: Environmental information

12.1 Toxicity:

Toxicity to fish:

Ethyl methyl ketone	LC/EC/IC50	> 1000 mg/l
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	LL/EL/IL50	>1 - <= 10 mg/l

Toxicity to daphnia:

Ethyl methyl ketone	LC/EC/IC50	> 100 mg/l
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	LL/EL/IL50	>1 - <= 10 mg/l

Toxicity to algae:

Ethyl methyl ketone	LC/EC/IC50	> 1000 mg/l
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	LL/EL/IL50	>10 - <= 100 mg/l

Toxicity to bacteria:

Ethyl methyl ketone	LC/EC/IC50	> 1000 mg/l
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	LL/EL/IL50	>10 - <= 100 mg/l

12.2 Persistence and degradability:

No data available.

12.3 Bioaccumulative potential:

No data available.

12.4 Mobility in soil:

No data available.

12.5 Results of PBT and vPvB assessment:

No data available.

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12.6 Other adverse effects:

The product should be prevented from entering drains, watercourses or soil.

Section 13: Notes on disposal

13.1 Product:

Waste code number: 160504* = Gases containing hazardous substances in pressure vessels.
* = Disposal must be documented.

Recommendation: Do not open by force or incinerate even after use.
Dispose of in accordance with official regulations.

13.2 Packaging:

Waste code number: 150110 = Packaging containing residues of hazardous substances or contaminated by hazardous substances.

Recommendation: Empty carefully and as completely as possible.
Dispose of according to official regulations.

Section 14: Transport information

ADR

- 14.1 UN number:** 1950
- 14.2 UN proper shipping name:** PRESSURIZED GAS PACKAGES
- 14.3 Transport hazard classes:** 2
- 14.4 Packing group:** -
- Classification code: 5F
- Labels: 2.1
- Limited quantity: 1L
- Tunnel Restriction Code: (D)
- 14.5 Hazardous to the environment:** YES

RID

- 14.1 UN number:** 1950
- 14.2 UN proper shipping name:** PRESSURIZED GAS PACKAGES
- 14.3 Transport hazard classes:** 2
- 14.4 Packing group:** --
- Classification code: 5F
- Hazard identification number: 23
- Labels: 2.1
- Limited quantity: LQ2
- 14.5 Hazardous to the environment:** YES
- 14.6 Special precautions for user:**
See section: 6, 7 and 8.

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Section 15: Legal regulations

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

Directive (2012/18/EC):

	Quantity 1	Quantity 2
P3a FLAMMABLE AEROSOL	150 t (net)	500 t (net)
E2 Hazardous to the aquatic environment, hazard category Chronic 2	200	500
Water hazard class :	WGK 2 clearly hazardous to water	
VOC (Directive 1999/13/EC):	VOC content: 627g/l = 91 %.	

15.2 Chemical Safety Assessment:

Chemical safety assessments for substances in this mixture have not been carried out.

Section 16: Other information

Full text of hazard statements in section 2 and 3:

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapor.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes severe eye irritation.
H336	May cause drowsiness and dizziness.
H411	Toxic to aquatic life with long lasting effects.

Changes:

- Section 3
- Section 8.1
- Section 15.1

The information contained in this Safety Data Sheet is based on our knowledge at the time of publication. They do not represent any warranted properties. With regard to warranty, the relevant product data sheets and the general conditions of sale apply exclusively. Observe product data sheets before use and processing.

(The data of the hazardous ingredients were taken from the latest safety data sheet of the supplier.)