



Safety Data Sheet

SDS-0019

according to 29 CFR 1910.1200(g)

RMS1 Spray

Print date: 24.06.2015

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1. IdentificationProduct identifier

RMS1 Spray

Details of the supplier of the safety data sheet

Company name: Hottinger Baldwin Messtechnik GmbH
Darmstadt

Street: Im Tiefen See 45

Place: D-64293 Darmstadt

Telephone: +49 (0)6151 803-0

e-mail: info@de.hbm.com

Internet: www.hbm.com

Responsible Department: Customer Care Center CCC +49 6151 803 0

Emergency phone number: +49(0)6131/19240

2. Hazard(s) identificationClassification of the chemical

Hazard Statements:
Highly flammable liquid and vapor
Causes serious eye irritation
May cause drowsiness or dizziness

Label elements

Signal word:

Danger

Pictograms:

flame; exclamation mark

Hazard statements

Highly flammable liquid and vapor
Causes serious eye irritation
May cause drowsiness or dizziness

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

Special labelling of certain mixtures

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

3. Composition/information on ingredientsMixtures



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Hazardous components

CAS No	Components	Quantity
67-64-1	acetone	25-50%
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	25-50%
106-97-8	butane	10-25%
74-98-6	propane	10-25%
75-28-5	isobutane	2.5-10%

4. First-aid measures

Description of first aid measures**General information**

Position and transport victim on their side. In case of respiratory distress, bring into semi-upright, seated position.

After inhalation

Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

Seek medical advice immediately.

5. Fire-fighting measures

Extinguishing media**Suitable extinguishing media**

Carbon dioxide (CO₂). Extinguishing powder. Water spray.
In case of major fire and large quantities: Water spray. alcohol resistant foam.

Unsuitable extinguishing media

High power water jet.

Specific hazards arising from the chemical

Combustible. Vapours may form explosive mixtures with air.

Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation.

Environmental precautions

Do not allow to enter into surface water or drains. Explosion hazard. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.



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Methods and material for containment and cleaning up

Provide adequate ventilation. Do not rinse down with water.

7. Handling and storage**Precautions for safe handling****Advice on safe handling**

Handle and open container with care.

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

Further information on handling

Do not spray on naked flames or any incandescent material.

Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

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

Advice on storage compatibility

Do not store together with: Food and feedingstuffs

Further information on storage conditions

Keep container tightly closed in a cool place. Keep away from heat.

8. Exposure controls/personal protection**Control parameters****Exposure limits**

CAS No.	Substance	ppm	mg/m ³	f/cc	Category	Origin
67-64-1	Acetone	1000	2400		TWA (8 h)	PEL
		250	590		TWA (8 h)	REL
75-28-5	Isobutane	800	1900		TWA (8 h)	REL
67-63-0	Isopropyl alcohol	400	980		TWA (8 h)	PEL
		400	980		TWA (8 h)	REL
		500	1225		STEL (15 min)	REL
74-98-6	Propane	1000	1800		TWA (8 h)	PEL
		1000	1800		TWA (8 h)	REL
106-97-8	n-Butane	800	1900		TWA (8 h)	REL

Biological Exposure Indices (BEI-ACGIH)

CAS No.	Substance	Determinant	Value	Test material	Sampling time
67-63-0	2-PROPANOL	Acetone	40 mg/L	urine	End of shift at end of workweek
67-64-1	ACETONE	Acetone	50 mg/L	urine	End of shift

Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

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Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream.
After work, wash hands and face. When using do not eat or drink.

Eyeface protection

Tightly sealed safety glasses.

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.

Wear suitable protective clothing and gloves.

Suitable gloves type: NBR (Nitrile rubber).

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

(gas filtering equipment (EN 141). :A brown)

9. Physical and chemical properties**Information on basic physical and chemical properties**

Physical state:	Aerosol
Color:	colourless
Odor:	Alcohol

Test method**Changes in the physical state**

Initial boiling point and boiling range:	-44 °C
Flash point:	-97 °C
Lower explosion limits:	1,5 vol. %
Upper explosion limits:	13 vol. %
Ignition temperature:	365 °C
Vapor pressure: (at 20 °C)	8300 hPa
Density (at 20 °C):	0,70254 g/cm ³

10. Stability and reactivity**Conditions to avoid**

Keep away from heat. Ignition hazard.

11. Toxicological information**Information on toxicological effects**



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Acute toxicity

CAS No	Components				
	Exposure routes	Method	Dose	Species	Source
67-64-1	acetone				
	oral	LD50	5800 mg/kg	Rat	RTECS
	dermal	LD50	20000 mg/kg	Rabbit	IUCLID
	inhalative (4 h) vapour	LC50	76 mg/l	Rat	
106-97-8	butane				
	inhalative (4 h) gas	LC50	273000 ppm	Rat	GESTIS

Irritation and corrosivity

Irritant effect on the skin: Irritant.

Irritant effect on the eye: Irritant.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

12. Ecological information

Further information

Do not allow to enter into surface water or drains.

13. Disposal considerations

Waste treatment methods

Advice on disposal

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.

14. Transport information

Marine transport (IMDG)

UN number: UN1950
UN proper shipping name: AEROSOLS
Transport hazard class(es): 2
Packing group: -
Hazard label: 2, see SP63

Limited quantity: See SP277
EmS: F-D, S-U

Air transport (ICAO)

UN number: UN1950
UN proper shipping name: AEROSOLS
Transport hazard class(es): 2.1



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Hazard label:

2.1



Limited quantity Passenger:

30 kg G

IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

15. Regulatory information

U.S. Regulations

National regulatory information

SARA Section 304 CERCLA:

Acetone (67-64-1): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Acetone (67-64-1): Fire hazard, Immediate (acute) health hazard

Isopropyl alcohol (mfg-strong acid process) (67-63-0): Fire hazard, Immediate (acute) health hazard

Butane (106-97-8): Fire hazard

Propane (74-98-6): Fire hazard

Isobutane (75-28-5): Fire hazard

SARA Section 313 Toxic release inventory:

Isopropyl alcohol (mfg-strong acid process) (67-63-0): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(r):

Butane (106-97-8): Threshold quantities = 10,000 lbs.

Propane (74-98-6): Threshold quantities = 10,000 lbs.

Isobutane (75-28-5): Threshold quantities = 10,000 lbs.

State Regulations

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

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Revision date: 21.05.2015

Revision No: 5,02

Other data

The information is based on present levels of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

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