
SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Name of product**RIEGLER Stainless steel maintenance spray / 400 ml
Code-Nr. R3280/400 / ID-Nr. 114567**1.2. Relevant identified uses of the substance or mixture and uses advised against****Recommended intended purpose(s)**

Technical Aerosols

1.3. Details of the supplier of the safety data sheet**Manufacturer/distributor**RIEGLER & Co. KG
Schützenstr. 27, D-72574 Bad Urach
Phone : +49 (0) 7125/9497-0, Fax : +49 (0) 7125/9497-97
E-Mail : zedok@riegler.de
Internet : www.riegler.de**Advice**Abteilung eDocumentation
Phone : +49 (0) 7125/9497-0
Fax : +49 (0) 7125/9497-97
E-mail (competent person):
zedok@riegler.de**1.4. Emergency telephone number****Emergency advice**Giftnotrufzentrale Bonn
Phone : +49(0)228-19 240

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]**

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Aerosol 1	H222, H229
Skin Irrit. 2	H315
STOT SE 3	H336
Aquatic Chronic 2	H411

Hazard Statements

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

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

GHS02



GHS07



GHS09

Signal word

Danger

Hazard Statements

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

Precautionary Statements

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362	Take off contaminated clothing.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501	Dispose of contents/container to hazardous or special waste collection point.

Special rules for supplemental label elements for certain mixtures

Contains (R)-(+)-Limonene . May produce an allergic reaction.

2.3. Other hazards

Product has an anesthetic effect.

Information pertaining to special dangers for human and environment

In extensive use, formation of flammable / explosive vapour-air mixture is possible.

Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/ information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Description

Mixture of oils, solvents and propellant.

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
64-17-5	200-578-6	ethanol	10 - 24,99	Flam. Liq. 2, H225
106-97-8	203-448-7	butane	10 - 24,99	Flam. Gas 1, H220 / Press. Gas
111-76-2	203-905-0	2-butoxyethanol	10 - 19,99	Acute Tox. 4, H332 / Acute Tox. 4, H312 / Acute Tox. 4, H302 / Eye Irrit. 2, H319 / Skin Irrit. 2, H315
5989-27-5	227-813-5	(R)-p-mentha-1,8-diene	0,3 - 0,99	Flam. Liq. 3, H226 / Skin Irrit. 2, H315 / Skin Sens. 1, H317 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410
64742-48-9	919-857-5	Naphtha (petroleum), hydrotreated heavy	10 - 24,99	Flam. Liq. 3, H226 / Asp. Tox. 1, H304 / STOT SE 3, H335 / , EUH066
74-98-6	200-827-9	propane	10 - 24,99	Flam. Gas 1, H220 / Press. Gas
		Mineral Oil	3 - 9,99	Asp. Tox. 1, H304
64742-49-0	921-024-6	Naphtha (petroleum), hydrotreated light	10 - 19,99	Flam. Liq. 2, H225 / Asp. Tox. 1, H304 / Aquatic Chronic 2, H411 / Skin Irrit. 2, H315 / STOT SE 3, H336

REACH

CAS No	Name	REACH registration number
5989-27-5	(R)-p-mentha-1,8-diene	01-2119529223-47
64742-48-9	Naphtha (petroleum), hydrotreated heavy	01-2119463258--33-xxxx
74-98-6	propane	01-2119486944-21
64742-49-0	Naphtha (petroleum), hydrotreated light	01-2119475514-35

Labelling for contents according to regulation (EC) No 648/2004, annex VII

less than 5 % scents

30 % and more aliphatic hydrocarbons

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.

In case of inhalation

Ensure of fresh air.

In the event of symptoms refer for medical treatment.

In case of skin contact

In case of contact with skin wash off with water.

Consult a doctor if skin irritation persists.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Do not induce vomiting.

Medical treatment.

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

No information available.

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

No information available.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Alcohol-resistant foam

Dry powder

Carbon dioxide

water mist

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Danger of bursting

In case of fire formation of dangerous gases possible.

5.3. Advice for firefighters**Special protective equipment for fire-fighters**

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus.

Additional information

Cool endangered containers with water spray jet.

Collect contaminated firefighting water separately, must not be discharged into the drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Ensure adequate ventilation.

Use personal protective clothing.

Keep away sources of ignition.

6.2. Environmental precautions

Inform pollution control authorities if product gets into the sewerage systems or open waters.

Do not discharge into the drains or bodies of water..

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material.

After taking up the material dispose according to regulation.

6.4. Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Do not spray into flames or any incandescent material.

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

General protective measures

Avoid contact with eyes and skin

Do not inhale gases/vapours/aerosols.

Hygiene measures

At work do not eat, drink, smoke or take drugs.

Wash hands before breaks and after work.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking

Do not spray on a naked flame or any incandescent material.

Pressurized container.

Do not pierce or burn even after use.

Avoid effect of heat.

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

Keep in closed original container.

Adhere to administrative regulations relating to storage of compressed gas cylinders / containers.

Further information on storage conditions

Protect from direct solar radiation.

Storage temperature may not exceed 50°C (=122°F).

Store container at cool and aired place.

7.3. Specific end use(s)**Recommendation(s) for intended use**

See section 1.2

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Ingredients with occupational exposure limits to be monitored**

CAS No	Name	Code	[mg/m ³]	[ppm]	Remark
106-97-8	Butane	8 hours	1450	600	EH40/2005
		Short-term	1810	750	
111-76-2	2-butoxyethanol	8 hours		25	EH40/2005
		Short-term		50	
64-17-5	ethanol	8 hours	1920	1000	EH40/2005

Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2006/15/EC or 2009/161/EU)

CAS No	Name	Code	[mg/m ³]	[ppm]	Remark
111-76-2	2-butoxyethanol	8 hours	98	20	skin
		Short-term	246	50	

DNEL-/PNEC-values
DNEL worker

CAS No	Substance name	Value	Code	Remark
64-17-5	ethanol	1900 mg/m ³	DNEL acute inhalative (local)	
		343 mg/kg	DNEL long-term dermal (systemic)	
		950 mg/m ³	DNEL acute inhalative (systemic)	
64742-49-0	Naphtha (petroleum), hydrotreated light	773 mg/kg bw/day	DNEL long-term dermal (systemic)	
		2035 mg/m ³	DNEL long-term inhalative (systemic)	

DNEL Consumer

CAS No	Substance name	Value	Code	Remark
64742-49-0	Naphtha (petroleum), hydrotreated light	699 mg/kg bw/day	DNEL long-term oral (repeated)	
		699 mg/kg bw/day	DNEL long-term dermal (systemic)	
		608 mg/m ³	DNEL long-term inhalative (systemic)	

Additional advice

The statutory local and national regulations have to be observed.

8.2. Exposure controls
Respiratory protection

If ventilation insufficient, wear respiratory protection.

Short-term: filter apparatus, filter AX/P2, otherwise environment-independent breathing apparatus.

Hand protection

Gloves (solvent-resistant)

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Glove material specification: Nitrile rubber

Chemical protective gloves must be chosen carefully in view of their design and depending on the dependence on the concentration and amounts of dangerous goods used in the specific working tasks.

Eye protection

tightly fitting goggles

Other protection measures

protective clothing

Appropriate engineering controls

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties
Appearance

aerosol

Colour

colourless, clear

Odour

solvent-like

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				
boiling point	not applicable				
Melting point / Freezing point	not determined				
Flash point	not applicable				Aerosol
Vapourisation rate	not applicable				
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	200 °C				
Self ignition temperature					The product is not self-igniting.
Lower explosion limit	0,6 Vol-%				
Upper explosion limit	15 Vol-%				
Vapour pressure	8300 hPa	20 °C			
Relative density	0,693 g/ml	20 °C			
Vapour density	not determined				
Solubility in water					No or low immiscib
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				
Solvent content	95,2 %				

Oxidising properties

No information available.

Explosive properties

The product is considered non-explosive ; nevertheless explosive vapour/air mixtures can be generated .

9.2. Other information

No information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Keep away from heat.

Formation of explosive gas/air mixtures.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

Thermal decomposition

Remark No decomposition if used as directed.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity/Irritation/Sensitization**

	Value/Validation	Species	Method	Remark
LD50 acute oral	470 mg/kg	rat		2-Butoxyethanol
LD50 acute dermal	2000 mg/kg	rabbit		2-Butoxyethanol
LC50 acute inhalation	> 25 mg/l (4 h)	rat		Naphtha
Skin irritation	irritant			
Eye irritation	non-irritant			
Skin sensitization	non-sensitizing			

Experiences made from practice

Vapours may cause dizziness, headaches and tiredness

Irritates mucous membranes.

Additional information

The product is to be handled with the caution usual with chemicals.

Other hazardous properties may not be excluded.

SECTION 12: Ecological information**12.1. Toxicity****Ecotoxicological effects**

	Value	Species	Method	Validation
Fish	LC50 1490 mg/l (96 h)	Lepomis macrochirus		2-Butoxyethanol
Daphnia	LL/EL/IL50 3 mg/l (48 h)	Daphnia magna		Naphtha
Algae	LL/EL/IL50 > 1000 mg/l (72 h)	Pseudokirchneriella subcapitata		Naphtha

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects**General regulation**

Toxic to aquatic life, fishes and plankton.

Even in the event of low quantities penetration into the underground drinking water is contaminated.

Do not allow uncontrolled leakage of product into the environment.

Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Waste code No.**

07 01 04*

20 01 99

Name of waste

other organic solvents, washing liquids and mother liquors

other fractions not otherwise specified

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

Recommendations for the product

Remove in accordance with local official regulations.

Recommendations for packaging

Dispose of according to the local waste regulations.

General information

For proper waste disposal a complete emptying of the tin is necessary.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	1950	1950	1950
14.2. UN proper shipping name	AEROSOLS	AEROSOLS	Aerosols, flammable
14.3. Transport hazard class(es)	2.1	2.1	2.1
14.4. Packing group	-	-	-
14.5. Environmental hazards	No	No	No

14.6. Special precautions for user

Caution: Gases

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

Land and inland navigation transport ADR/RID

Hazard label(s) 2.1

tunnel restriction code D

Classification code 5F

transport in "limited quantities" according to 3.4 ADR is possible

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
VOC standard
VOC content 95,16 %

VOC value 659,5 g/L

15.2. Chemical Safety Assessment

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

SECTION 16: Other information
Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

Each user is responsible for the implementation of the national special regulations.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Please observe the following disclaimer! --- Our safety data sheets have been compiled according to effective EU-directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

EUH066 Repeated exposure may cause skin dryness or cracking.

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.



Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)

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**RIEGLER Stainless steel maintenance spray /
400 ml**

H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.