

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

**Name of product** RIEGLER Rust shock / 400 ml  
Code-Nr. R3190/400 / ID-Nr. 114572

**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	
Eye Dam. 1	H318	

**Hazard Statements**

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H318	Causes serious eye damage.

**2.2. Label elements****Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]**

GHS02



GHS05

**Signal word**

Danger

**Hazard Statements**

H222	Extremely flammable aerosol.
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H229 Pressurised container: May burst if heated.

H318 Causes serious eye damage.

### 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.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

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.

### Hazardous ingredients for labeling

propan-1-ol

### 2.3. Other hazards

Caution! Container under pressure.

### 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

Propellant: propane / butane

#### 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	50 - 70	Flam. Liq. 2, H225
71-23-8	200-746-9	propan-1-ol	10 < 20	Flam. Liq. 2, H225 / Eye Dam. 1, H318 / STOT SE 3, H336
74-98-6	200-827-9	propane	1 - 10	Flam. Gas 1, H220 / Press. Gas
75-28-5	200-857-2	isobutane	1 - 10	Flam. Gas 1, H220 / Press. Gas
106-97-8	203-448-7	butane	10 - 20	Flam. Gas 1, H220 / Press. Gas

#### REACH

CAS No	Name	REACH registration number
64-17-5	ethanol	01-2119457610-43
71-23-8	propan-1-ol	01-2119486761-29
74-98-6	propane	01-2119486944-21
75-28-5	isobutane	01-2119485395-27
106-97-8	butane	01-2119474691-32

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

15 % or over but less than 30 % aliphatic hydrocarbons

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**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 immediately with soap and water.

**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**

Seek medical advice.

**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.

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

Alcohol-resistant foam

Dry fire-extinguishing substance

Carbon dioxide

Water spray jet

**Unsuitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

May lead to formation of explosive/easily ignitable vapour air mixtures.

Danger of bursting

**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.

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**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**

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

**6.3. Methods and material for containment and cleaning up**

Take up residues with absorbent material (e.g. sand, sawdust, general-purpose binder).  
After taking up the material dispose according to regulation.

**Additional Information**

Sort out leaky cans and dispose according to regulations.  
Informations for disposal see chapter 13.

**6.4. Reference to other sections**

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

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

Ventilate closed rooms at ground level.  
Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

**General protective measures**

Do not inhale gases/vapours/aerosols.  
Avoid contact with the eyes.

**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.  
Protect from heat and sunlight.  
The product is combustible.  
Vapours can form an explosive mixture with air.  
Take precautionary measures against static discharges.

**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 heat and direct solar radiation.  
Keep container in a well-ventilated place  
Storage temperature may not exceed 50°C (=122°F).  
Keep in a cool 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/m3]	[ppm]	Remark
106-97-8	Butane	8 hours	1450	600	EH40/2005
		Short-term	1810	750	
64-17-5	ethanol	8 hours	1920	1000	EH40/2005
75-28-5	iso-Butan (CH)	MAK, 8 hours	7600	3200	ZNS
		Short-term	1900	800	

#### DNEL-/PNEC-values

##### DNEL worker

CAS No	Substance name	Value	Code	Remark
64-17-5	ethanol	343 mg/kg	DNEL long-term dermal (systemic)	
		950 mg/m3	DNEL acute inhalative (systemic)	
		1900 mg/m3	DNEL acute inhalative (local)	

#### ! Additional advice

The statutory local and national regulations have to be observed.

### 8.2. Exposure controls

#### Respiratory protection

If ventilation insufficient, wear respiratory protection.

#### Hand protection

Glove material specification: Butyl rubber

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

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

#### Odour

alcoholic

#### Odour threshold

not determined

#### Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not applicable				

	Value	Temperature	at	Method	Remark
<b>boiling point</b>	not applicable				
<b>melting point</b>	No data available				
<b>Flash point</b>	not applicable				Aerosol
<b>Vapourisation rate</b>	not applicable				
<b>Flammable (solid)</b>	not applicable				
<b>Flammability (gas)</b>	not applicable				
<b>Ignition temperature</b>	360 °C				
<b>Self ignition temperature</b>					The product is not self-igniting.
<b>Lower explosion limit</b>	1,5 Vol-%				
<b>Upper explosion limit</b>	15 Vol-%				
<b>Vapour pressure</b>	2700 hPa	20 °C			
<b>Relative density</b>	0,71 g/cm <sup>3</sup>	20 °C			
<b>Vapour density</b>	not determined				
<b>Solubility in water</b>					miscible
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	not determined				
<b>Decomposition temperature</b>	not determined				
<b>Viscosity dynamic</b>	not determined				
<b>Viscosity kinematic</b>	not determined				

**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

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

no

### 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

No dangerous decomposition products known.

### 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
<b>Skin irritation</b>	low irritant effect - not necessary to label			
<b>Eye irritation</b>	corrosive			
<b>Skin sensitization</b>	non-sensitizing			

#### Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
<b>Mutagenicity</b>				No experimental information on genotoxicity in vivo available.
<b>Reproduction-Toxicity</b>				No indications of toxic effects were observed in reproduction studies in animals.
<b>Carcinogenicity</b>				No indications of carcinogenic effects are available from long-term trials.

#### Experiences made from practice

Inhalation causes narcotic effect/intoxication.

**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**

No information available.

**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**

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.**

15 01 04  
15 01 10\*

**Name of waste**

metallic packaging  
packaging containing residues of or contaminated by hazardous substances

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.

**Recommended cleansing agent**

Water

**General information**

For proper waste disposal a complete emptying of the tin is necessary.  
Assignment to a waste code number / waste identification according to the EWC is to be carried out on a sector or process-specific basis.

**SECTION 14: Transport information**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA-DGR</b>
<b>14.1. UN number</b>	1950	1950	1950
<b>14.2. UN proper shipping name</b>	AEROSOLS	AEROSOLS	Aerosols, flammable



	ADR/RID	IMDG	IATA-DGR
<b>14.3. Transport hazard class(es)</b>	2.1	2.1	2.1
<b>14.4. Packing group</b>	-	-	-
<b>14.5. Environmental hazards</b>	No	No	No
<b>14.6. Special precautions for user</b> Caution: Gases			
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> not applicable			
<b>Land and inland navigation transport ADR/RID</b> 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	96,25 %
VOC value	682 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.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 9.2

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.