



Printing date 18.12.2019 Revision: 18.12.2019

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

- · 1.1 Product identifier
- · Trade name: Aerosol Kurzzeitmarkierer diff.colors
- · Article number (product ID.): REZ836
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Application of the substance / the mixture: painting
- · Uses advised against No further relevant information available.
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Peter Kwasny GmbH Heilbronner Str. 96 D-74831 Gundelsheim

D-74831 Gundelsheim Tel.: 0049-(0)6269-95-20 E-mail: labor@kwasny.de

- $\cdot \textit{Further information obtainable from:} \ \textit{Product safety department}$
- · 1.4 Emergency telephone number: Tel.: +49 6269 95 20
- · national:

National Poisons Information Service, Birmingham

Tel.: 844 892 0111

· K-Nr. 0001

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



Eye Irrit. 2 H319

Causes serious eye irritation.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms





GHS02

GHS07

- · Signal word Danger
- · Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated. H319 Causes serious eye irritation.

· Precautionary statements

P101

If medical advice is needed, have product container or label at hand.

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P102 Keep out of reach of children.
P103 Read label before use.
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.

P337+P313 If eye irritation persists: Get medical advice/attention.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

· Additional information:

Without adequate ventilation, explosive atmosphere/gas mix may be created.

EUH208 Contains Fatty acids, C14-18 and C16-18-unsatd., maleated, maleic anhydride. May produce an allergic reaction.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 64-17-5 EINECS: 200-578-6 Reg.nr.: 01-2119457610-43-xxxx	ethanol Flam. Liq. 2, H225; 🕩 Eye Irrit. 2, H319	25-<50%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21-xxxx	propane Flam. Gas 1, H220; Press. Gas C, H280	10-<25%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32-xxxx	butane (containing ≤ 0,1 % butadiene (203-450-8)) ♦ Flam. Gas 1, H220; Press. Gas C, H280	10-<25%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27-xxxx	isobutane (containing ≤ 0,1 % butadiene (203-450-8)) ♦ Flam. Gas 1, H220; Press. Gas C, H280	5-<10%
CAS: 85711-46-2 EINECS: 288-306-2 Reg.nr.: 01-2119976378-19-xxxx	Fatty acids, C14-18 and C16-18-unsatd., maleated Skin Irrit. 2, H315; Skin Sens. 1, H317	≥0.1-<1%
CAS: 108-31-6 EINECS: 203-571-6 Reg.nr.: 01-2119472428-31-xxxx	maleic anhydride ♦ Resp. Sens. 1, H334; STOT RE 1, H372; ♦ Skin Corr. 1B, H314; Eye Dam. 1, H318; ↑ Acute Tox. 4, H302; Skin Sens. 1A, H317	<0.1%

[·] Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- · After swallowing: If symptoms persist consult doctor.
- · 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media -
- · Suitable extinguishing agents: Cool container whit water
- · 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- \cdot 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up: Ensure adequate ventilation.
- · 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling Keep away from heat and direct sunlight.
- · Information about fire and explosion protection:

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

Keep ignition sources away - Do not smoke.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Observe official regulations on storing packagings with pressurised containers.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- \cdot 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

64-17-5 ethanol

WEL Long-term value: 1920 mg/m³, 1000 ppm

106-97-8 butane (containing ≤0,1 % butadiene (203-450-8))

WEL Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)

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108-31-6 maleic anhydride

WEL Short-term value: 3 mg/m³ Long-term value: 1 mg/m³

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- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.



When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Half mask with combination filter, class A1P2 minimum, or breathing mask with outer air supply.

· Protection of hands:

Protective gloves



The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- · Material of gloves Nitrile rubber, NBR
- · Penetration time of glove material

Gloves must be changed after every contamination.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

butyl rubber, 0,7mm

· Eye protection:

Safety glasses



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Aerosol

Colour: According to product specification

Odour: Characteristic
 Odour threshold: Not determined.

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· pH-value:	Not determined.
· Change in condition Melting point/freezing point: Initial boiling point and boiling range	Undetermined. 2: -44.5 °C
· Flash point:	<0°C Without propellant gas.
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	365 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air vapour mixtures are possible. Not determined.
· Explosion limits: Lower: Upper:	1.5 Vol % 15 Vol %
· Vapour pressure at 20 °C:	3,600 hPa
 Density: Relative density Vapour density Evaporation rate 	Not determined. Not determined. Not determined. Not applicable.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
· Solvent content: Organic solvents: VOC (EU)	81.4 % With propellant gas. Content given by weight. 81.35 %
Solids content: - 9.2 Other information	18.6 % No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- $\cdot \textbf{10.5 Incompatible materials:} \ \textit{No further relevant information available}.$
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

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SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation

Causes serious eye irritation.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Ikke relevant.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

15 01 10* packaging containing residues of or contaminated by hazardous substances

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

SECTIC	N 1	<i>4: 1</i>	Transport i	ini	^f ormat	ion

· 14.1 UN-Number

· ADR, IMDG, IATA UN1950

· 14.2 UN proper shipping name

· ADR
 · IMDG
 · IATA
 1950 AEROSOLS
 AEROSOLS, flammable

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14.3 Transport hazard class(es)	
ADR	
2	
Class	2 5F Gases.
Label	2.1
IMDG, IATA	
2	
Class	2.1
Label	2.1
14.4 Packing group	
ADR, IMDG, IATA	Void
	not classified
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Gases.
Danger code (Kemler):	-
EMS Number:	not classified F-D,S-U
Stowage Code	SW1 Protected from sources of heat.
3	SW22 For AEROSOLS with a maximum capacity of 1 lit
	Category A. For AEROSOLS with a capacity above 1 lin
	Category B. For WASTE AEROSOLS: Category C, Cl of living quarters.
Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 lits
	Segregation as for class 9. Stow "separated from" clas
	except for division 1.4.
	For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2
	For WASTE AEROSOLS:
	Segregation as for the appropriate subdivision of class 2
14.7 Transport in bulk according to Anna	
Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E0
Excepted quantities (EQ)	Not permitted as Excepted Quantity
Transport category	2
Tunnel restriction code	D
IMDG	
Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E0
Excepted quantities (EQ)	Coae: E0 Not permitted as Excepted Quantity
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· UN "Model Regulation":

UN 1950 AEROSOLS, 2.1

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SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture VOC: <840g/l
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P3a FLAMMABLE AEROSOLS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · National regulations:
- · Technical instructions (air):

Class	Share in %
NK	50-100

- · Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H372 Causes damage to organs through prolonged or repeated exposure.

· Department issuing SDS: Product safety department

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases - Category 1

Aerosol 1: Aerosols - Category 1

Press. Gas C: Gases under pressure - Compressed gas

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 4: Acute toxicity - oral - Category 4

Skin Corr. 1B: Skin corrosion/irritation - Category 1B

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Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1 Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1A: Skin sensitisation – Category 1A

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

* Data compared to the previous version altered.