Rustcon Aerosol 500ml

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

1.1. Product identifier

Trade name/designation:

Rustcon Aerosol 500ml

Article No.:
T181001

UFI:
NK87-WUW4-HD0A-083A

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

Use of the substance/mixture:
Aerosol coating

1.3. Details of the supplier of the safety data sheet

Supplier:

KANDO Service GmbH
Hartleitnerstraße 3
4653 Eberstalzell
Austria
Telephone: +43 (0) 7241 213 79
E-mail: msds@kando.eu

1.4. Emergency telephone number

Vergiftungsinformationszentrale (VIZ), Stubenring 6, 1010 Wien, 24h: 01 406 43 43, Montag - Freitag: 8 bis 16 Uhr, Tel.: 01 406 68 98 (keine medizinische Auskunft) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Aspiration hazard *(Asp. Tox. 1)*	H304: May be fatal if swallowed and enters airways.	Calculation method.
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	Calculation method.
Respiratory or skin sensitisation *(Skin Sens. 1)*	H317: May cause an allergic skin reaction.	Calculation method.
Serious eye damage/eye irritation *(Eye Dam. 1)*	H318: Causes serious eye damage.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H335: May cause respiratory irritation.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	Calculation method.
STOT-repeated exposure *(STOT RE 2)*	H373: May cause damage to organs through prolonged or repeated exposure. ( )	Calculation method.
aerosol dispensers and lighters *(Aerosol 1)*	H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated.	

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2.2. Label elements

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

Hazard pictograms:

GHS08
Health hazard

GHS07
Exclamation mark

GHS05
Corrosion

GHS02
Flame

Signal word: Danger

Hazard components for labelling:
butan-1-ol; Reaction mass of ethylbenzene and xylene; Phenol, 4,4'(1-methylethyidene)bis-polymer with 2,2'-[(1- methylethylidene)bis(4,1-phenylene oxymethylene)] bis[oxirane]; acetone

Hazard statements for physical hazards	
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

Hazard statements for health hazards	
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure. ( )

Supplemental hazard information: none

Precautionary statements Prevention	
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.
P260	Do not breathe mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye protection/face protection.

Precautionary statements Response	
P302 + P352	IF ON SKIN: Wash with plenty of water and soap.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/ if you feel unwell.

Precautionary statements Storage	
P403	Store in a well-ventilated place.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Precautionary statements Disposal	
P501	Dispose of the contents / container in accordance with local / regional / national / international regulations.

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2.3. Other hazards

Other adverse effects:
The product does not meet the PBT/vPvB criteria.

SECTION 3: Composition/information on ingredients

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3.2. Mixtures

Description:
Active ingredient mixture with propellant gas

Additional information:
Aerosols and containers fitted with a solid nebuliser containing substances or mixtures classified as hazardous by aspiration must not be labelled for this hazard.

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 67-64-1 EC No.: 200-662-2 Index No.: 606-001-00-8 REACH No.: 01-2119471330-49-XXXX	**acetone** Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger EUH066 **Acute Toxicity Estimate** ATE (oral) 5,800 mg/kg ATE (dermal) 20,000 mg/kg ATE (inhalation, gases) 76 ppmV ATE (inhalation, vapour) 76 mg/L ATE (inhalation, dust/mist) 76 mg/L	10 – < 25 weight-%
EC No.: 905-588-0 REACH No.: 01-2119488216-32	**Reaction mass of ethylbenzene and xylene** Acute Tox. 4 (H312, H332), Aquatic Chronic 3 (H412), Asp. Tox. 1 (H304), Eye Irrit. 2 (H319), Flam. Liq. 3 (H226), STOT RE 2 (H373), STOT SE 3 (H335), Skin Irrit. 2 (H315) Danger **Acute Toxicity Estimate** ATE (oral) > 3,523 mg/kg ATE (dermal) 1,100 mg/kg ATE (inhalation, gases) 27.571 ppmV ATE (inhalation, vapour) 11 mg/L	10 – < 25 weight-%
CAS No.: 1401-55-4 EC No.: 215-753-2	**Tannins** Eye Irrit. 2 (H319) Warning **Acute Toxicity Estimate** ATE (oral) 2,260 mg/kg ATE (inhalation, vapour) 2,260 mg/L	2.5 – < 10 weight-%
CAS No.: 67-63-0 EC No.: 200-661-7 Index No.: 603-117-00-0 REACH No.: 01-2119457558-25	**propan-2-ol** Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger **Acute Toxicity Estimate** ATE (oral) > 2,000 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, gases) > 25 ppmV ATE (inhalation, vapour) > 20 mg/L ATE (inhalation, dust/mist) 46,600 mg/L	2.5 – < 10 weight-%
CAS No.: 107-98-2 EC No.: 203-539-1 Index No.: 603-064-00-3 REACH No.: 01-2119457435-35	**1-methoxypropan-2-ol** Flam. Liq. 3 (H226), STOT SE 3 (H336) Warning **Acute Toxicity Estimate** ATE (oral) 4,016 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, gases) 28.8 ppmV ATE (inhalation, vapour) 27.596 mg/L	2.5 – < 10 weight-%

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 71-36-3 EC No.: 200-751-6 Index No.: 603-004-00-6 REACH No.: 01-2119484630-38	**butan-1-ol** Acute Tox. 4 (H302), Eye Dam. 1 (H318), Flam. Liq. 3 (H226), STOT SE 3 (H335, H336), Skin Irrit. 2 (H315) Danger **Acute Toxicity Estimate** ATE (oral) 2,292 mg/kg ATE (dermal) 3,430 mg/kg ATE (inhalation, gases) 17,000 ppmV ATE (inhalation, vapour) 17 mg/L ATE (inhalation, dust/mist) 17,000 mg/L	≥ 3 – < 10 weight-%
CAS No.: 25036-25-3	**Phenol, 4,4'(1-methylethyidene)bis-polymer with 2,2'-[(1- methylethylidene)bis(4,1-phenylene oxymethylene)] bis[oxirane]** Eye Irrit. 2 (H319), Skin Irrit. 2 (H315), Skin Sens. 1 (H317) Warning **Acute Toxicity Estimate** ATE (oral) > 2,000 mg/kg ATE (dermal) > 2,000 mg/kg	1 – < 2.5 weight-%

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:
After inhaling vapours, first symptoms of poisoning may develop hours later, so always consult a doctor.

Following inhalation:
Fresh air supply, consult a doctor in case of complaints. If unconscious but breathing normally, place in recovery position and seek medical advice.

In case of skin contact:
Wash with plenty of water and soap.

After eye contact:
Rinse opened eye for several minutes under running water. Consult a doctor if symptoms persist

Following ingestion:
Do not induce vomiting, seek medical help immediately.

4.2. Most important symptoms and effects, both acute and delayed
No data available

4.3. Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water mist, Extinguishing powder, Carbon dioxide, alcohol resistant foam

Unsuitable extinguishing media:
Water in full jet

5.2. Special hazards arising from the substance or mixture
No data available

5.3. Advice for firefighters
Special protective equipment: Put on breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:
Wear protective equipment. Keep unprotected persons away.

6.1.2. For emergency responders

No data available

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of spillage into water or sewage system, inform the competent authorities.

6.3. Methods and material for containment and cleaning up

For cleaning up:
Do not wash away with water or aqueous detergents.

Other information:
Provide adequate ventilation.

6.4. Reference to other sections

Further information on proper storage: see section 7.
For further information on personal protective equipment: see section 8.
For further information on disposal: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:
Ensure good ventilation/extraction at the workplace.

Fire prevent measures:
Do not spray on naked flames or any incandescent material. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Container is under pressure. Protect from sunlight and temperatures above 50°C (e.g. from incandescent lamps). Do not open by force or burn even after use.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:
Store in a cool place. The official regulations for the storage of pressurised gas packages must be observed.

Hints on storage assembly:
The official regulations for the storage of pressurised gas packages must be observed.

Storage class (TRGS 510, Germany): 2B – Aerosol dispensers and lighters

Further information on storage conditions:
Store in a cool, dry place in well-sealed containers. Protect from heat and direct sunlight.

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
MAK (AT)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	② 2,000 ppm (4,800 mg/m³) ⑤ (max. 4x15 min./Schicht)
IOELV (EU)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,210 mg/m³)
MAK (AT)	**acetone** CAS No.: 67-64-1 EC No.: 200-662-2	① 500 ppm (1,200 mg/m³)
MAK (AT) from 25 Sept 2018	**Reaction mass of ethylbenzene and xylene** EC No.: 905-588-0	② 100 ppm (442 mg/m³) ⑤ (max. 4x15 min./Schicht)
IOELV (EU)	**Reaction mass of ethylbenzene and xylene** EC No.: 905-588-0	① 50 ppm (221 mg/m³) ② 100 ppm (442 mg/m³) ⑤ (may be absorbed through the skin)
MAK (AT) from 25 Sept 2018	**Reaction mass of ethylbenzene and xylene** EC No.: 905-588-0	① 50 ppm (221 mg/m³)
MAK (AT)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	② 800 ppm (2,000 mg/m³) ⑤ (max. 4x15 min./Schicht)
MAK (AT)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³)
IOELV (EU)	**1-methoxypropan-2-ol** CAS No.: 107-98-2 EC No.: 203-539-1	① 100 ppm (375 mg/m³) ② 150 ppm (568 mg/m³) ⑤ (may be absorbed through the skin)
MAK (AT)	**1-methoxypropan-2-ol** CAS No.: 107-98-2 EC No.: 203-539-1	① 50 ppm (187 mg/m³) ② 50 ppm (187 mg/m³) ⑤ (Momentanwert, kann über die Haut aufgenommen werden) H
MAK (AT)	**butan-1-ol** CAS No.: 71-36-3 EC No.: 200-751-6	① 50 ppm (150 mg/m³)
MAK (AT)	**butan-1-ol** CAS No.: 71-36-3 EC No.: 200-751-6	② 200 ppm (600 mg/m³) ⑤ (max. 4x15 min./Schicht)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
acetone CAS No.: 67-64-1 EC No.: 200-662-2	1,210 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	200 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	2,420 mg/m³	① DNEL worker ② Acute - inhalation, local effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	186 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	62 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
acetone CAS No.: 67-64-1 EC No.: 200-662-2	62 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	77 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	14.8 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	289 mg/m³	① DNEL worker ② Acute - inhalation, local effects
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	180 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	108 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	1.6 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	500 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	89 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	888 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	319 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	26 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	369 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	43.9 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects

Substance name	DNEL value	① DNEL type ② Exposure route
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	553.5 mg/m³	① DNEL worker ② Acute - inhalation, local effects
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	50.6 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	18.1 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	3.3 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	310 mg/m³	① DNEL worker ② Long-term – inhalation, local effects
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	55 mg/m³	① DNEL Consumer ② Long-term – inhalation, local effects
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	3.125 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects

Substance name	PNEC Value	① PNEC type
acetone CAS No.: 67-64-1 EC No.: 200-662-2	10.6 mg/L	① PNEC aquatic, freshwater
acetone CAS No.: 67-64-1 EC No.: 200-662-2	1.06 mg/L	① PNEC aquatic, marine water
acetone CAS No.: 67-64-1 EC No.: 200-662-2	100 mg/L	① PNEC sewage treatment plant
acetone CAS No.: 67-64-1 EC No.: 200-662-2	30.4 mg/kg	① PNEC sediment, freshwater
acetone CAS No.: 67-64-1 EC No.: 200-662-2	3.04 mg/kg	① PNEC sediment, marine water
acetone CAS No.: 67-64-1 EC No.: 200-662-2	29.5 mg/kg	① PNEC soil
acetone CAS No.: 67-64-1 EC No.: 200-662-2	21 mg/L	① PNEC aquatic, intermittent release
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	0.327 mg/L	① PNEC aquatic, marine water
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	6.58 mg/L	① PNEC sewage treatment plant
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	12.46 mg/L	① PNEC sediment, freshwater
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	12.46 mg/L	① PNEC sediment, marine water
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	2.31 mg/kg	① PNEC soil

Substance name	PNEC Value	① PNEC type
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	140.9 mg/L	① PNEC aquatic, freshwater
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	140.9 mg/L	① PNEC aquatic, marine water
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	2,251 mg/L	① PNEC sewage treatment plant
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	552 mg/kg	① PNEC sediment, freshwater
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	552 mg/kg	① PNEC sediment, marine water
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	28 mg/kg	① PNEC soil
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	140.9 mg/L	① PNEC aquatic, intermittent release
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	10 mg/L	① PNEC aquatic, freshwater
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	1 mg/L	① PNEC aquatic, marine water
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	100 mg/L	① PNEC sewage treatment plant
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	52.3 mg/kg	① PNEC sediment, freshwater
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	5.2 mg/kg	① PNEC sediment, marine water
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	4.49 mg/kg	① PNEC soil
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	100 mg/L	① PNEC aquatic, intermittent release
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	0.082 mg/L	① PNEC aquatic, freshwater
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	0.0082 mg/L	① PNEC aquatic, marine water
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	2,476 mg/L	① PNEC sewage treatment plant
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	0.178 mg/kg	① PNEC sediment, freshwater
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	0.0178 mg/kg	① PNEC sediment, marine water
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	0.015 mg/kg	① PNEC soil

Substance name	PNEC Value	① PNEC type
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	2.25 mg/L	① PNEC aquatic, intermittent release

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No further details. See section: 7.

8.2.2. Personal protection equipment

Eye/face protection:

Tight-fitting safety goggles (EN-166)

Skin protection:

Hand protection:
Wear gloves for protection against chemicals according to EN 374. Gloves / solvent resistant
Breakthrough times and swelling properties of the material must be taken into consideration. Selection of glove material considering breakthrough times, permeation rates and degradation.
Glove material:
The selection of a suitable glove depends not only on the material but also on other quality features and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of glove materials cannot be calculated in advance and must therefore be checked before use.
NBR (Nitrile rubber)
Recommended material thickness: ≥ 0,5mm
Permeation time (maximum wear duration):
For continuous contact we recommend gloves with a breakthrough time of at least 240 minutes, with the preference for a breakthrough time greater than 480 minutes. For short term or splash protection we recommend the same. We are aware that suitable gloves offering this protection are not available. In this case, a shorter breakthrough time is permissible, provided the procedures for maintenance and timely replacement are followed. The thickness of the gloves is not a good measure of the resistance the gloves give against a chemical substance, as this depends on the exact composition of the material of the gloves. The exact breakthrough time should be checked with the glove manufacturer and adhered to.

Body protection:
Use protective suit. (EN-13034/6). It is recommended to wear antistatic, chemical and oil-resistant clothing and safety shoes that completely cover the skin. (EN1149; EN340&EN ISO 13688; EN13034-6).

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Filter A2/P2

Other protection measures:

General protective and hygienic measures: Keep away from food, drink and animal feed. Remove contaminated, saturated clothing immediately. Wash hands before breaks and after work. Do not inhale gases/vapours/aerosols. Avoid contact with eyes and skin. General ventilation.

8.2.3. Environmental exposure controls

Use a suitable container to prevent environmental pollution.

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

Appearance

Form: Aerosol
Colour: light brown
Odour: characteristic
flammability: No data available

Rustcon Aerosol 500ml

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	*not applicable*		② Mixture is not polar/aprotic.
Initial boiling point and boiling range	-24.8 °C		
Flash point	-42 °C		
Evaporation rate	*No data available*		
Auto-ignition temperature	235 °C		
Upper/lower flammability or explosive limits	1.1 – 20 Vol-%		
Vapour pressure	5,200 hPa	20 °C	
Density	0.797 g/cm³	20 °C	
Water solubility	Immiscible		
Dynamic viscosity	≤ 20.5 Pa* s	40 °C	
Kinematic viscosity	≤ 20.5 mm²/s	40 °C	
flammability			② Easily flammable

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9.2. Other information
The product is not self-igniting. The product is not explosive, but the formation of explosive vapour/air mixtures is possible. formation of explosive vapour/air mixtures is possible.
Organic solvents: 85,1%
Water: 4,3%
Solid content: 10,8%

9.2.1. Information with regard to physical hazard classes
Aerosols:
Extremely flammable aerosol. Pressurized container: May burst if heated.

SECTION 10: Stability and reactivity

10.1. Reactivity
No further relevant information available.

10.2. Chemical stability
Thermal decomposition / Conditions to avoid: No decomposition when used as directed.

10.3. Possibility of hazardous reactions
No dangerous reactions known.

10.4. Conditions to avoid
No further relevant information available.

10.5. Incompatible materials
No further relevant information available.

10.6. Hazardous decomposition products
No dangerous decomposition products known.

SECTION 11: Toxicological information

* **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

acetone CAS No.: 67-64-1 EC No.: 200-662-2
ATE (oral): 5,800 mg/kg
ATE (dermal): 20,000 mg/kg
ATE (inhalation, vapour): 76 mg/L
ATE (inhalation, dust/mist): 76 mg/L
LD_{50} oral: 5,800 mg/kg (Rat)
LD_{50} dermal: >15,800 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (gas): 76 ppmV 4 h (Rat)
LC_{50} Acute inhalation toxicity (vapour): 5,540 mg/L 4 d (Oncorhynchus mykiss (Rainbow trout))
LC_{50} Acute inhalation toxicity (dust/mist): 76 mg/L 4 h (Rat)
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0
ATE (dermal): 1,100 mg/kg
ATE (inhalation, vapour): 11 mg/L
LD_{50} oral: >3,523 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (gas): 27.571 ppmV 4 h (Rat)
LC_{50} Acute inhalation toxicity (vapour): 29,000 mg/L 4 h (Rat)
Tannins CAS No.: 1401-55-4 EC No.: 215-753-2
LD_{50} oral: 2,260 mg/kg (Ratte)
LC_{50} Acute inhalation toxicity (vapour): 2,260 mg/L
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
LD_{50} oral: >2,000 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg (Rat)
LC_{50} Acute inhalation toxicity (gas): >25 ppmV 4 h (Rat)
LC_{50} Acute inhalation toxicity (vapour): >20 mg/L 6 h (Rat)
LC_{50} Acute inhalation toxicity (dust/mist): 46,600 mg/L (Rat)
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1
ATE (oral): 4,016 mg/kg
LD_{50} oral: 4,016 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg (Rat)
LC_{50} Acute inhalation toxicity (gas): 28.8 ppmV 4 h (Rat)
LC_{50} Acute inhalation toxicity (vapour): 27.596 mg/L 6 h (Rat)
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6
LD_{50} oral: 2,292 mg/kg (Rat)
LD_{50} dermal: 3,430 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (gas): 17,000 ppmV 4 h (Rat)
LC_{50} Acute inhalation toxicity (vapour): 17 mg/L 4 h (Rat)
LC_{50} Acute inhalation toxicity (dust/mist): 17,000 mg/L 4 h (Rat)
Phenol, 4,4'(1-methylethyidene)bis-polymer with 2,2'-[(1- methylethylidene)bis(4,1-phenylene oxymethylene)] bis[oxirane] CAS No.: 25036-25-3
LD_{50} oral: >2,000 mg/kg (Ratte)
LD_{50} dermal: >2,000 mg/kg (Ratte)

Acute oral toxicity:
Based on available data, the classification criteria are not met.

Acute dermal toxicity:
Based on available data, the classification criteria are not met.

Acute inhalation toxicity:
Based on available data, the classification criteria are not met.

Skin corrosion/irritation:
Causes skin irritation.

Serious eye damage/irritation:
Causes serious eye damage.

Respiratory or skin sensitisation:
May cause an allergic skin reaction.

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:
May cause respiratory irritation. May cause drowsiness or dizziness.

STOT-repeated exposure:
May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard:
May be fatal if swallowed and enters airways.

11.2. Information on other hazards

Endocrine disrupting properties:
None of the ingredients are included.

SECTION 12: Ecological information

*

12.1. Toxicity

acetone CAS No.: 67-64-1 EC No.: 200-662-2
LC_{50}: 8,300 mg/L 4 d (fish)
LC_{50}: 8,450 mg/L 2 d (crustaceans, water flea)
LC_{50}: 8,300 mg/L 4 d (fish)
EC_{50}: 7,200 mg/L 4 d (Algae/water plant)
EC_{50}: 7,200 mg/L 4 d (Alge)
EC_{50}: 8,800 mg/L (Daphnia magna)
NOEC: 2,212 mg/L (crustaceans, Daphnia magna)
NOEC: 2,212 mg/L (crustaceans, Daphnia pulex)
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0
LC_{50}: 8.9 – 16.4 mg/L 4 d (fish, Pimephales promelas)
EC_{50}: 3.2 – 9.5 mg/L 2 d (crustaceans, Daphnia magna)
NOEC: 0.44 mg/L 3 d (Algae/water plant)
LC_{50}: 2.6 mg/L 4 d (fish, Oncorhynchus mykiss)
EC_{50}: 2.2 mg/L 3 d (Algae/water plant, Chlorella vulgaris)
NOEC: >1.39 mg/L (fish, Oncorhynchus kisutch)
NOEC: 0.74 mg/L (crustaceans, Ceriodaphnia dubia)
LC_{50}: 8.9 – 16.4 mg/L 4 d (Pimephales promelas)
EC_{50}: 3.2 – 9.5 mg/L 2 d (Daphnia magna)

propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	
LC_{50}: >1,000 mg/L 4 d (fish)	
LC_{50}: 9,640 mg/L 4 d (fish, Pimephales promelas)	
LC_{50}: 9,714 mg/L 1 d (Daphnia magna)	
EC_{50}: >1,000 mg/L 2 d (crustaceans)	
EC_{50}: >100 mg/L (Algae/water plant, Bacteria)	
EC_{50}: >100 mg/L 2 d (crustaceans, Daphnia magna)	
NOEC: >1,000 mg/L 28 d (fish, Danio rerio)	
NOEC: >1,000 mg/L 21 d (crustaceans, Daphnia magna)	
ErC_{50}: >100 mg/L 3 d (Algae/water plant, Desmodesmus subspicatus)	
ErC_{50}: >100 mg/L 3 d (Algae/water plant, Scenedesmus subspicatus)	
LOEC: 1,000 mg/L (Alge)	
LOEC: 1,000 mg/L (Algae/water plant, Algae)	
LOEC: 1,000 mg/L	
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	
LC_{50}: 6,812 mg/L 4 d (fish, Leuciscus idus)	
EC_{50}: 23,300 mg/L 2 d (crustaceans, Daphnia magna)	
LC_{50}: 6,812 mg/L 4 d (Leuciscus idus)	
LC_{50}: >1,000 mg/L 4 d (Oncorhynchus mykiss)	
EC_{50}: 23,300 mg/L 2 d (Daphnia magna)	
EC_{50}: >1,000 mg/L 2 d (Daphnia magna)	
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6	
LC_{50}: 1,376 mg/L 4 d (fish)	
LC_{50}: 1,376 mg/L 4 d (fish)	
LC_{50}: 1,376 mg/L 4 d (fish)	
EC_{50}: 225 mg/L (Selenastrum capricornutum)	
NOEC: 4.1 mg/L 21 d (Daphnia magna)	
EC_{50}: 1,328 mg/L 2 d (Daphnia magna)	

Aquatic toxicity:
Harmful to aquatic life with long lasting effects.

*
12.2. Persistence and degradability

acetone CAS No.: 67-64-1 EC No.: 200-662-2	
Biodegradation: Yes, rapidly	
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	
Biodegradation: Yes, rapidly	
Remark: Readily biodegradable (according to OECD criteria).	
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1	
Biodegradation: Yes, rapidly	

Biodegradation:
Not readily biodegradable.

*
12.3. Bioaccumulative potential

acetone CAS No.: 67-64-1 EC No.: 200-662-2	
Log K_{OW}: -0.24	
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0	
Log K_{OW}: 3.16	
Bioconcentration factor (BCF): 29	
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	
Log K_{OW}: 0.05	

1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1
Log K_{OW}: -0.44

12.4. Mobility in soil
No data available

*
12.5. Results of PBT and vPvB assessment

acetone CAS No.: 67-64-1 EC No.: 200-662-2
Results of PBT and vPvB assessment: —
Reaction mass of ethylbenzene and xylene EC No.: 905-588-0
Results of PBT and vPvB assessment: —
Tannins CAS No.: 1401-55-4 EC No.: 215-753-2
Results of PBT and vPvB assessment: —
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
Results of PBT and vPvB assessment: —
1-methoxypropan-2-ol CAS No.: 107-98-2 EC No.: 203-539-1
Results of PBT and vPvB assessment: —
butan-1-ol CAS No.: 71-36-3 EC No.: 200-751-6
Results of PBT and vPvB assessment: —
Phenol, 4,4'(1-methylethyidene)bis-polymer with 2,2'-[(1- methylethylidene)bis(4,1-phenylene oxymethylene)] bis[oxirane] CAS No.: 25036-25-3
Results of PBT and vPvB assessment: —

The product does not meet the PBT/vPvB criteria.

12.6. Endocrine disrupting properties
The product does not contain any substances with endocrine-disrupting properties.

*
12.7. Other adverse effects
water hazard class 2: obviously hazardous to water
Do not allow to enter into surface water or drains. Drinking water hazard even when small quantities leak into the subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Must not be disposed of together with household waste.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV
Directive 2008/98/EC (Waste Framework Directive)

HP 3	Flammable
HP 4	Irritant — skin irritation and eye damage
HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

Waste treatment options
Appropriate disposal / Product:
Consult the appropriate local waste disposal expert about waste disposal.

Other disposal recommendations:
Uncleaned packaging: Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
UN 1950	UN 1950	UN 1950	UN 1950
14.2. UN proper shipping name			
AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.3. Transport hazard class(es)			
2.1	2.1	2.1	2.1
14.4. Packing group			
		-	
14.5. Environmental hazards			
No	No	No	No
* **14.6. Special precautions for user**			
Special Provisions: 190 | 327 | 344 | 625 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E0 **Classification code:** 5F **Tunnel restriction code:** (D) **Remark:** Attention: Gases	**Special Provisions:** 190 | 327 | 344 | 625 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E0 **Classification code:** 5F **Remark:** Attention: Gases	**Special Provisions:** 63 | 190 | 277 | 327 | 344 | 381 | 959 **Limited quantity (LQ):** Siehe SV277 **Excepted Quantities (EQ):** E0 **EmS-No.:** F-D, S-U **Remark:** Attention: Gases Stowage Code: SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. Segregation Code: SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 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.	**Special Provisions:** A145 | A167 **Limited quantity (LQ):** Y203 **Excepted Quantities (EQ):** E0 **Remark:** Attention: Gases

14.7. Maritime transport in bulk according to IMO instruments
not applicable

* 14.8. Additional information
On passenger aircraft/rail: 75kg
On cargo aircraft only: 150kg

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:

Directive 2012/18/EU
Named dangerous substances - ANNEX I: None of the ingredients are included.

Restrictions on use:

Seveso category P3a FLAMMABLE AEROSOLS
Quantity threshold (in tons) for use in lower class farms 150t
Quantity threshold (in tons) for use in upper-tier establishments 500t
Regulation (EC) No 1907/2006 ANNEX XVII: Restriction conditions: 3
Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II: None of the ingredients are included.
Regulation (EU) 2019/1148
Annex I - RESTRICTED EXPORT SUBSTANCES FOR EXPLOSIVES (upper concentration limit for a permit pursuant to Article 5(3)): None of the ingredients are included.
Annex II - EXPLOSIVES REPORTABLE FOR EXPLOSIVES: Acetone
Regulation (EC) No 273/2004 on drug precursors: Acetone
Regulation (EC) No 111/2005 laying down rules for the monitoring of trade in drug precursors between the Community and third countries: Acetone

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive], Hazard categories:
• P3a 'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids

Named dangerous substances:
• Liquefied flammable gases, Category 1 or 2 (including liquefied petroleum gas) and natural gas

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:

Volatile organic compound (VOC) content: 678.6 g/L

15.1.2. National regulations

No data available

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

* **16.1. Indication of changes**

2.2.	Label elements
2.3.	Other hazards
3.2.	Mixtures
8.1.	Control parameters
9.1.	Information on basic physical and chemical properties
9.2.	Other information
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008
12.1.	Toxicity
12.2.	Persistence and degradability
12.3.	Bioaccumulative potential
12.5.	Results of PBT and vPvB assessment
12.7.	Other adverse effects
14.6.	Special precautions for user
14.8.	Additional information
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture

16.1.	Indication of changes
16.2.	Abbreviations and acronyms
16.4.	Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
16.5.	List of relevant hazard statements and/or precautionary statements from sections 2 to 15

*
16.2. Abbreviations and acronyms

AC	Article Category
ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
AVV	Waste Shipment Ordinance (DE)
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DIN	German Institute for Standardization / German Industrial Standard
DNEL	derived no-effect level
EAK	European Waste Catalogue
EC_{50}	Effective Concentration 50%
EG	European Community
EN	European Standard
ES	Exposure scenario
EU	European Union
EWC	European Waste Catalogue
IC_{50}	Inhibition Concentration 50 %
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Standards Organisation
KG	body weight
LC_{50}	Lethal (fatal) Concentration 50%
LD_{50}	Lethal (fatal) Dose 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
OEL	Threshold Limit Value
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
Tox.	Toxicity
TRGS	Technische Regeln für Gefahrstoffe
UFI	Unique Formula Identifier
UN	United Nations
VOC	Volatile organic compounds
ZNS	central nervous system

16.3. Key literature references and sources for data

No data available

* 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Aspiration hazard *(Asp. Tox. 1)*	H304: May be fatal if swallowed and enters airways.	Calculation method.
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	Calculation method.
Respiratory or skin sensitisation *(Skin Sens. 1)*	H317: May cause an allergic skin reaction.	Calculation method.
Serious eye damage/eye irritation *(Eye Dam. 1)*	H318: Causes serious eye damage.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H335: May cause respiratory irritation.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	Calculation method.
STOT-repeated exposure *(STOT RE 2)*	H373: May cause damage to organs through prolonged or repeated exposure. ( )	Calculation method.
aerosol dispensers and lighters *(Aerosol 1)*	H222; H229: Extremely flammable aerosol. Pressurised container: May burst if heated.	

* 16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements	
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Supplemental hazard information	
EUH066	Repeated exposure may cause skin dryness or cracking.

16.6. Training advice
No data available

16.7. Additional information
To the best of our knowledge, the information contained herein is accurate. However, neither the above-mentioned supplier nor its subsidiaries assume any liability with regard to the correctness or completeness of the information provided. A final determination of the suitability of individual materials is the sole responsibility of the user. All materials may involve unknown risks and should be used with caution. While certain risks are described herein, we cannot guarantee that these are the only possible risks.

* Data changed compared with the previous version.