Rustcon 5l

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

1.1. Product identifier

Trade name/designation:

Rustcon 5l

Article No.:
T180005

UFI:
CNAX-Y2A0-5U00-94CU

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

Use of the substance/mixture:
Rust converting paint for rust removal and decorative protection of fences, iron railings, rusting car parts, wrought-iron objects, etc. When used outdoors, overcoat with weather-resistant enamel paint.

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
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	

2.2. Label elements

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

Hazard pictograms:

GHS07
Exclamation mark

Signal word: Warning

Hazard components for labelling:
formic acid; 1,2-benzisothiazol-3(2H)-one; Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Hazard statements for health hazards	
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Supplemental hazard information	
EUH208	Contains 1,2-benzisothiazol-3(2H)-one; Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

Precautionary statements Prevention	
P280	Wear protective gloves/protective clothing and eye protection/face protection.

Precautionary statements Response	
P302 + P352	IF ON SKIN: Wash with plenty of water.
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.

Precautionary statements Disposal	
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

Adverse physicochemical effects:
none

Adverse human health effects and symptoms:
May cause skin and eye irritation and an allergic reaction.

Adverse environmental effects:
Not classified as hazardous to the environment.

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

SECTION 3: Composition/information on ingredients

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3.2. Mixtures

Description:
Mixture of the listed hazardous substances and other substances not considered hazardous.

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 64-17-5 EC No.: 200-578-6 Index No.: 603-002-00-5 REACH No.: 01-2119457610-43	**Ethyl alcohol (ethanol; ethyl alcohol)** Eye Irrit. 2 (H319), Flam. Liq. 2 (H225)  Danger **Acute Toxicity Estimate** ATE (oral) > 6,200 mg/kg ATE (dermal) 20,000 mg/kg ATE (inhalation, dust/mist) > 8,000 mg/L	2 – 3 Vol-%
CAS No.: 5995-86-8 EC No.: 611-919-7	**3,4,5-Trihydroxy-benzoesäure, Monohydrat** Eye Irrit. 2 (H319), STOT SE 3 (H335), Skin Irrit. 2 (H315)  Warning	1 – 3 Vol-%

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 64-18-6 EC No.: 200-579-1 Index No.: 607-001-00-0 REACH No.: 01-2119497774-37	**formic acid** Acute Tox. 3 (H331), Acute Tox. 4 (H302), Flam. Liq. 3 (H226), Skin Corr. 1A (H314)  Danger **Specific concentration limit (SCL)** Skin Irrit. 2; H315: 2% ≤ C < 10% Eye Irrit. 2; H319: 2% ≤ C < 10% Eye Dam. 1; H318: 2% ≤ C < 10% **Acute Toxicity Estimate** ATE (oral) 730 mg/kg ATE (inhalation, dust/mist) 7.4 mg/L	1.8 – 2 Vol-%
CAS No.: 112-34-5 EC No.: 203-961-6 Index No.: 603-096-00-8 REACH No.: 01-2119475104-44	**2-(2-butoxyethoxy)ethanol** Eye Irrit. 2 (H319)  Warning **Acute Toxicity Estimate** ATE (oral) > 2,000 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, vapour) > 20 mg/L	1.5 – 2 Vol-%
CAS No.: 2634-33-5 EC No.: 220-120-9 Index No.: 613-088-00-6 REACH No.: 01-2120761540-60	**1,2-benzisothiazol-3(2H)-one** Acute Tox. 4 (H302), Aquatic Acute 1 (H400), Eye Dam. 1 (H318), Skin Irrit. 2 (H315), Skin Sens. 1 (H317)  Danger **Acute Toxicity Estimate** ATE (oral) 500 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, dust/mist) > 5 mg/L	0.011 – 0.021 Vol-%
CAS No.: 55965-84-9 Index No.: 613-167-00-5	**Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)** Acute Tox. 2 (H310, H330), Acute Tox. 3 (H301), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Eye Dam. 1 (H318), Skin Corr. 1C (H314), Skin Sens. 1A (H317)  Danger M-factor (acute): 1 M-factor (chronic): 100 **Acute Toxicity Estimate** ATE (oral) 100 mg/kg ATE (dermal) 50 mg/kg ATE (inhalation, vapour) 0.5 mg/L ATE (inhalation, dust/mist) 0.05 mg/L	< 0.0015 Vol-%

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Remove the injured person to fresh air. Remove the contaminated clothing and put on clean clothes. No personal protective equipment is required for the persons providing first aid.

Following inhalation:

Provide fresh air. Put victim at rest, cover with a blanket and keep warm.
In case of respiratory irritation, difficulty in breathing or aspiration (accidental inhalation of foreign bodies or liquids into the respiratory tract), seek medical attention.

In case of skin contact:

Immediately remove any contaminated clothing, shoes or stockings.
Wash off immediately with soap and water and rinse well.
Consult a doctor if symptoms persist.

After eye contact:

Rinse immediately with plenty of water, also under the eyelid, for at least 15 minutes.
Consult a doctor if symptoms persist.
Contact lenses must be removed.

Following ingestion:
Drink plenty of water.
Do NOT induce vomiting.
Get immediate medical advice/attention.

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

After inhalation: Not characteristic. Prolonged inhalation may irritate the mucous membrane.
After eye contact: Slightly irritating effect, itching and reddening of the eyes may occur.
After skin contact: Slightly irritating effect, itching and reddening of the eyes may occur.
After ingestion: Not characteristic in smaller quantities. In case of larger quantities, abdominal pain, nausea and vomiting may occur.

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

If swallowed, call a doctor immediately. Seek medical attention if skin or eye irritation or respiratory problems persist.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water, Foam, Carbon dioxide

Unsuitable extinguishing media:
Water jet

5.2. Special hazards arising from the substance or mixture

Not flammable.

Hazardous combustion products:
In case of fire may be liberated: toxic gases (Carbon monoxide, Carbon dioxide), Vapours

5.3. Advice for firefighters

Extinguishing rule: The waste water produced during firefighting must not be allowed to flow into the sewage system or water bodies; the decomposition products can be hazardous to health. The resulting combustion residues and the accumulated extinguishing water must be disposed of in accordance with local regulations. Special protective measures for fire-fighting: A compressed air breathing apparatus with compressed air independent of the outside air should be used or protective clothing and suitable protective equipment in accordance with the regulations are required (helmet with neck protection, protective clothing, protective shoes, protective gloves), which prevent the mixture from coming into contact with the skin as well as the eyes and also prevent the inhalation of the gases and smoke produced by the fire.

5.4. Additional information

During incomplete combustion, a complex mixture of solid and liquid particles and gases (including carbon monoxide) is likely to be formed and transported in the air. At high temperatures, the decomposition products exert harmful effects when inhaled.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:
The release, discharge as well as run-off of the mixture must be prevented or skin and eye contact must be avoided. On wet surfaces, this may form a slippery, slippery layer.

6.1.2. For emergency responders

No data available

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent the product from entering waste water, surface water, ground water. 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:
Evacuate area. Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Other information:
Collect in closed and suitable containers for disposal.

6.4. Reference to other sections

See section 7 for further information on safe handling.
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:
Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Ensure good ventilation/extraction at the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:
Keep only in original packaging. Store in a cool dry place.

Hints on storage assembly:
Keep away from food, drink and animal feed.

Further information on storage conditions:
Protect from frost.

7.3. Specific end use(s)

Recommendation:
Rust converting paint for rust removal and decorative protection of fences, iron railings, rusting car parts, wrought-iron objects, etc. When used outdoors, overcoat with weather-resistant enamel paint.

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)	**Ethyl alcohol (ethanol; ethyl alcohol)** CAS No.: 64-17-5 EC No.: 200-578-6	① 1,000 ppm (1,900 mg/m³)
MAK (AT)	**Ethyl alcohol (ethanol; ethyl alcohol)** CAS No.: 64-17-5 EC No.: 200-578-6	② 2,000 ppm (3,800 mg/m³) ⑤ (max. 3x60 min./Schicht, Momentanwert)
MAK (AT)	**formic acid** CAS No.: 64-18-6 EC No.: 200-579-1	① 5 ppm (9 mg/m³) ② 5 ppm (9 mg/m³) ⑤ (Momentanwert)
IOELV (EU)	**formic acid** CAS No.: 64-18-6 EC No.: 200-579-1	① 5 ppm (9 mg/m³)
MAK (AT) from 11 Sept 2007	**2-(2-butoxyethoxy)ethanol** CAS No.: 112-34-5 EC No.: 203-961-6	② 15 ppm (101.2 mg/m³) ⑤ (max. 4x15 min./Schicht)

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
IOELV (EU)	**2-(2-butoxyethoxy)ethanol** CAS No.: 112-34-5 EC No.: 203-961-6	① 10 ppm (67.5 mg/m³) ② 15 ppm (101.2 mg/m³)
MAK (AT) from 11 Sept 2007	**2-(2-butoxyethoxy)ethanol** CAS No.: 112-34-5 EC No.: 203-961-6	① 10 ppm (67.5 mg/m³)
MAK (AT) from 25 Sept 2018	**Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)** CAS No.: 55965-84-9	① 0.05 mg/m³ ⑤ Sh

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
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	950 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	114 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	1,900 mg/m³	① DNEL worker ② Acute - inhalation, local effects
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	950 mg/m³	① DNEL worker ② Acute - inhalation, local effects
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	343 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	206 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	87 mg/kg bw/day	① DNEL worker ② Long-term - oral, systemic effects
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	9.5 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	3 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	9.5 mg/m³	① DNEL worker ② Long-term – inhalation, local effects
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	3 mg/m³	① DNEL Consumer ② Long-term – inhalation, local effects
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	19 mg/m³	① DNEL worker ② Acute - inhalation, local effects

Substance name	DNEL value	① DNEL type ② Exposure route
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	9.5 mg/m³	① DNEL Consumer ② Acute - inhalation, local effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	40.5 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	67.5 mg/m³	① DNEL worker ② Long-term – inhalation, local effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	40.5 mg/m³	① DNEL Consumer ② Long-term – inhalation, local effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	101.2 mg/m³	① DNEL worker ② Acute - inhalation, local effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	60.7 mg/m³	① DNEL Consumer ② Acute - inhalation, local effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	83 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	50 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	6.25 mg/kg	① DNEL Consumer ② Long-term - oral, systemic effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	5 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	6.81 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	1.2 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	0.966 mg/kg	① DNEL worker ② Long-term - dermal, systemic effects
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	0.345 mg/kg	① DNEL worker ② Long-term - dermal, systemic effects

Substance name	PNEC Value	① PNEC type
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	0.96 mg/L	① PNEC aquatic, freshwater
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	0.79 mg/L	① PNEC aquatic, marine water
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	580 mg/L	① PNEC sewage treatment plant
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	3.6 mg/kg	① PNEC sediment, freshwater
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	2.9 mg/kg	① PNEC sediment, marine water

Substance name	PNEC Value	① PNEC type
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	0.63 mg/kg	① PNEC soil
Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	380 mg/kg	① PNEC secondary poisoning
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	2 mg/L	① PNEC aquatic, freshwater
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	0.2 mg/L	① PNEC aquatic, marine water
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	7.2 mg/L	① PNEC sewage treatment plant
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	13.4 mg/kg	① PNEC sediment, freshwater
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	1.34 mg/kg	① PNEC sediment, marine water
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	1.5 mg/kg	① PNEC soil
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	1.1 mg/L	① PNEC aquatic, freshwater
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	0.11 mg/L	① PNEC aquatic, marine water
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	200 mg/L	① PNEC sewage treatment plant
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	4.4 mg/kg	① PNEC sediment, freshwater
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	0.44 mg/kg	① PNEC sediment, marine water
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	0.32 mg/kg	① PNEC soil
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	56 mg/kg	① PNEC secondary poisoning
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	0.00403 mg/L	① PNEC aquatic, freshwater
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	0.000403 mg/L	① PNEC aquatic, marine water
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	0.0499 mg/kg	① PNEC sediment, freshwater
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	0.00499 mg/kg	① PNEC sediment, marine water
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	3 mg/kg	① PNEC soil

Substance name	PNEC Value	① PNEC type
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	0.0011 mg/L	① PNEC aquatic, intermittent release

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation.

8.2.2. Personal protection equipment

Eye/face protection:

Safety goggles with side shields (EN 166).

Skin protection:

Hand protection:
Appropriate chemically resistant gloves (EN 374) also for long, direct contact, corresponding to penetration value < 480 minutes, e.g. nitrile rubber (0.35 mm), chloroprene rubber (0.5 mm), polyvinyl chloride. Contaminated gloves should be washed off. If the gloves are perforated, the inner part is contaminated or the contamination cannot be removed, the gloves must be destroyed.

Body protection:
Appropriate protective clothing must be worn, e.g.: EN 463.

Respiratory protection:

With appropriate ventilation - under likely circumstances - no recommended respiratory protection is prescribed.

Other protection measures:

General protective measures: Avoid release of the mixture, skin and eye contact, and ingestion.
Personnel shall be aware of the hazards of the mixture and its precursors and the methods of protection during work. It is forbidden to eat, drink and smoke at the place of use.
Occupational hygiene protective measures: Washing/hand washing facilities shall be provided at the place of regular use during and after work.
Hygiene measures: Wash hands and face thoroughly after handling. Wash contaminated clothing before reuse.

8.2.3. Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid
Colour: white
Odour: inconspicuous
flammability: No data available

Safety relevant basis data

Parameter	Value	① Method ② Remark
pH	> 2 – < 3	
Melting point	0 °C	
Freezing point	0 °C	
Initial boiling point and boiling range	100 °C	
Flash point	> 100 °C	
Evaporation rate	*No data available*	
Auto-ignition temperature	*No data available*	
Upper/lower flammability or explosive limits	*No data available*	
Vapour pressure	*No data available*	
Vapour density	*No data available*	
Density	1,000 kg/m³	

Parameter	Value	① Method ② Remark
Bulk density	*not applicable*	
Water solubility	miscible	
Dynamic viscosity	*No data available*	
Kinematic viscosity	*No data available*	

9.2. Other information
Not flammable.
Solid content: 26% - 29%

SECTION 10: Stability and reactivity

10.1. Reactivity
Chemical family: Styrene-acrylate based rust conversion paint.

10.2. Chemical stability
Stable mixture under normal conditions, if the storage conditions in section 7 are observed. Sensitive to frost.

10.3. Possibility of hazardous reactions
With oxidising agents, alkalis, acids. Polymerises in air and hardens.

10.4. Conditions to avoid
Extreme temperature conditions.

10.5. Incompatible materials
No further relevant information available.

10.6. Hazardous decomposition products
Does not decompose under normal handling and storage conditions. Hazardous combustion products see in section 5.

SECTION 11: Toxicological information

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

Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6
LD_{50} oral: >6,200 mg/kg (Rat)
LD_{50} dermal: 20,000 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (dust/mist): >8,000 mg/L (Rat)
formic acid CAS No.: 64-18-6 EC No.: 200-579-1
LD_{50} oral: 730 mg/kg (Rat)
LC_{50} Acute inhalation toxicity (dust/mist): 7.4 mg/L 4 h (Rat)
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6
LD_{50} oral: >2,000 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg (Rat)
LC_{50} Acute inhalation toxicity (vapour): >20 mg/L (Rat)
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9
LD_{50} oral: 500 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg (Rat)
LC_{50} Acute inhalation toxicity (dust/mist): >5 mg/L

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS No.: 55965-84-9
ATE (inhalation, vapour): 0.5 mg/L
ATE (inhalation, dust/mist): 0.05 mg/L
LD_{50} oral: 64 mg/kg (Rat)
LD_{50} dermal: 87.12 mg/kg (Rabbit)
LC_{50} Acute inhalation toxicity (dust/mist): 0.33 mg/L 4 h (Rat)

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 irritation.

Respiratory or skin sensitisation:
May cause allergic reactions.

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 irritate eyes, skin and respiratory tract.

STOT-repeated exposure:
May irritate eyes, skin and respiratory tract, irritates mucous membranes.

Aspiration hazard:
Based on available data, the classification criteria are not met.

Additional information:
After inhalation: Not characteristic. Prolonged inhalation may irritate the mucous membrane.
After eye contact: Slightly irritating effect, itching and reddening of the eyes may occur.
After skin contact: Slightly irritating effect, itching and reddening of the eyes may occur.
After ingestion: Not characteristic in smaller quantities. In case of larger quantities, abdominal pain, nausea and vomiting may occur.

11.2. Information on other hazards

Endocrine disrupting properties:
None of the ingredients are included.

SECTION 12: Ecological information

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12.1. Toxicity

Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6
LC_{50}: 8,140 mg/L 2 d (fish)
formic acid CAS No.: 64-18-6 EC No.: 200-579-1
LC_{50}: 46 – 100 mg/L 4 d (fish, Leuciscus idus)
EC_{50}: 34.2 mg/L 2 d (crustaceans, Daphnia magna)
EC_{50}: 47 mg/L (Pseudomonas putida)

2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	
LC_{50}: 2,780 mg/L 4 d (fish, Pimephales promelas)	
EC_{50}: 4,950 mg/L 2 d (crustaceans, Daphnia magna (Big water flea))	
ErC_{50}: >100 mg/L (Algae/water plant, Scenedesmus subspicatus)	
EC_{50}: >100 mg/L 2 d (Daphnia magna) OECD 202	
ErC_{50}: >100 mg/L (Algae/water plant, Scenedesmus sp.) OECD 201	
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	
LC_{50}: >0.1 – 1 mg/L 4 d (fish)	
EC_{50}: >0.1 – 1 mg/L 2 d (crustaceans)	
EC_{50}: >0.1 – 1 mg/L 3 d (Algae/water plant)	
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS No.: 55965-84-9	
LC_{50}: >0.1 – 1 mg/L	
EC_{50}: >0.1 – 1 mg/L	
EC_{50}: >0.1 – 1 mg/L	

Assessment/classification:
No further relevant information available.

12.2. Persistence and degradability

formic acid CAS No.: 64-18-6 EC No.: 200-579-1	
Biodegradation: Yes, rapidly	
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	
Biodegradation: Yes, rapidly	
Remark: Readily biodegradable (according to OECD criteria).	
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	
Biodegradation: Yes, slowly	

Additional information:
not persistent.

12.3. Bioaccumulative potential

Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	
Log K_{OW}: -0.32	
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	
Log K_{OW}: -0.54	
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	
Log K_{OW}: 0.56	
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	
Log K_{OW}: 1.45	

Accumulation / Evaluation:
No indication of bioaccumulation potential.

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment

Ethyl alcohol (ethanol; ethyl alcohol) CAS No.: 64-17-5 EC No.: 200-578-6	
Results of PBT and vPvB assessment: —	
3,4,5-Trihydroxy-benzoesäure, Monohydrat CAS No.: 5995-86-8 EC No.: 611-919-7	
Results of PBT and vPvB assessment: —	
formic acid CAS No.: 64-18-6 EC No.: 200-579-1	
Results of PBT and vPvB assessment: —	

2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	
Results of PBT and vPvB assessment: —	
1,2-benzisothiazol-3(2H)-one CAS No.: 2634-33-5 EC No.: 220-120-9	
Results of PBT and vPvB assessment: —	
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS No.: 55965-84-9	
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. Endocrine disrupting properties
None of the ingredients are included.

12.7. Other adverse effects
No information is available on photochemical ozone creation, ozone depletion and global warming potentials. The mixture does not contain any components that could influence the AOX value of the waste water. The product and its unused residues must not be discharged into water, soil or sewage system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Dispose of waste according to applicable legislation.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

07 03 01 *	aqueous washing liquids and mother liquors

**: Evidence for disposal must be provided.*

Waste code packaging

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

**: Evidence for disposal must be provided.*

Waste treatment options

Appropriate disposal / Product:
No information is available on photochemical ozone creation, ozone depletion and global warming potentials. The mixture does not contain any components that could influence the AOX value of the waste water. The product and its unused residues must not be discharged into water, soil or sewage system.

Appropriate disposal / Package:
No information is available on photochemical ozone creation, ozone depletion and global warming potentials. The mixture does not contain any components that could influence the AOX value of the waste water. The product and its unused residues must not be discharged into water, soil or sewage system.

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			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es)			
not relevant	not relevant	not relevant	not relevant
14.4. Packing group			
not relevant	not relevant	not relevant	not relevant

*

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.5. Environmental hazards			
not relevant	not relevant	not relevant	not relevant
14.6. Special precautions for user			
not relevant	not relevant	not relevant	not relevant

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

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:
1907/2006/EC (18.12.2006): Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals. 2020/878/EU (18.06.2020): Regulation amending Annex II to Regulation 1907/2006/EC. 453/2010/EU (20.05.2010): Regulation amending Regulation 1907/2006/EC. 2019/521/EU (27/03/2019): Regulation amending Regulation 1272/2008/EC. 1272/2008/EC (16.12.2008): Regulation on classification, labelling and packaging of substances and mixtures.

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:
Volatile organic compounds (VOC) content in percent by weight: 130 mg/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

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16.1. Indication of changes

3.2.	Mixtures
8.1.	Control parameters
9.1.	Information on basic physical and chemical properties
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008
12.1.	Toxicity
14.3.	Transport hazard class(es)
16.1.	Indication of changes
16.2.	Abbreviations and acronyms

*
16.2. Abbreviations and acronyms

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
AOX	Adsorbable Organic halogen compounds
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DNEL	derived no-effect level
EC_{50}	Effective Concentration 50%
EN	European Standard
ES	Exposure scenario
EWC	European Waste Catalogue
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
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
OECD	Organisation for Economic Cooperation and Development
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
SCL	Specific concentration limit
TRGS	Technische Regeln für Gefahrstoffe
UN	United Nations
VOC	Volatile organic compounds

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
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	

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.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
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.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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.

Rustcon 5l

* Data changed compared with the previous version.