

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1

Page 1/18



REDOCOL Colour Edging Pen (various colours)

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

1.1. Product identifier

Trade name/designation:

REDOCOL Colour Edging Pen (various colours)

Article No.:

KA60000

UFI:

T95C-C58Q-W005-4RA1

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

Use of the substance/mixture:

Restoration Kit

Relevant identified uses:

Sector of uses [SU]

SU 6a: Manufacture of wood and wood products

Product Categories [PC]

PC 9: Coatings and paints, fillers, putties, thinners

Article categories [AC]

AC 11: Wood articles: furniture

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Ostermann UK Ltd

Stonebridge Cross Business Park

Unit 104 Pointon Way

WR9 0LW Droitwich

United Kingdom

Telephone: UK +44 (0) 1905 793 550, Ireland +44 (0) 1905 793 552

Telefax: +44 (0) 1905 793 559

E-mail: UK sales.uk@ostermann.eu, Ireland sales.ie@ostermann.eu

Website: www.ostermann.eu

E-mail (competent person): j.bruns@ostermann.eu

1.4. Emergency telephone number

UK: Mr. J. Bruns +44 1905 793 550 IR: Mr. J. Bruns +44 1905 793 552, 24h: +49 30 - 30 68 67 00 (National Poison Inform. Centre Berlin), UK +44 1905 793 550/ IR +44 (0)1905 793 552 (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
flammable liquids (<i>Flam. Liq. 2</i>)	H225: Highly flammable liquid and vapour.	
Acute toxicity (oral) (<i>Acute Tox. 4</i>)	H302: Harmful if swallowed.	
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	
STOT-single exposure (<i>STOT SE 3</i>)	H336: May cause drowsiness or dizziness.	

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1

Page 2/18



REDOCOL Colour Edging Pen (various colours)

2.2. Label elements

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

Hazard pictograms:



GHS02
Flame



GHS07
Exclamation mark

Signal word: Danger

Hazard statements for physical hazards

H225	Highly flammable liquid and vapour.
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hazard statements for health hazards

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Supplemental hazard information: -

Precautionary statements Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P270	Do not eat, drink or smoke when using this product.

Precautionary statements Response

P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/First aider/ if you feel unwell.
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/First aider if you feel unwell.

Special rules for supplemental label elements for certain mixtures:

12,4 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (oral).
17,1 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal).
16,3 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (inhalative).
16,3 % percent of the mixture consists of components of unknown hazards to the aquatic environment.

2.3. Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description:

Mixture of following listed substances with nonhazardous additions.

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1



Page 3/18

REDOCOL Colour Edging Pen (various colours)

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 123-86-4 EC No.: 204-658-1 REACH No.: 01-2119485493-29-0007	n-butyl acetate Flam. Liq. 3 (H226), STOT SE 3 (H336) Warning EUH066	29 - < 48.57 weight-%
CAS No.: 108-10-1 EC No.: 203-550-1 REACH No.: 01-2119473980-30	4-methylpentan-2-one Acute Tox. 4 (H332), Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H335) Danger EUH066	11 - < 19.1 weight-%
CAS No.: 64-17-5 EC No.: 200-578-6	ethanol Flam. Liq. 2 (H225) Danger	2 - < 4.68 weight-%
CAS No.: 108-65-6 EC No.: 203-603-9	2-methoxy-1-methylethyl acetate Flam. Liq. 3 (H226) Warning	2 - < 3.89 weight-%
CAS No.: 64742-82-1 EC No.: 927-241-2	Naphtha (petroleum), hydrodesulfurized heavy Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Flam. Liq. 3 (H226), STOT SE 3 (H336) Danger EUH066	1 - < 2.09 weight-%
CAS No.: 13463-67-7 EC No.: 236-675-5 REACH No.: 01-2119489379-17-0000	titanium dioxide The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].	0 - < 0.71 weight-%
CAS No.: 64742-95-6 EC No.: 918-668-5 REACH No.: 01-2119455851-35	Hydrocarbons, C9, aromatics Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Flam. Liq. 3 (H226), STOT SE 3 (H335, H336) Danger EUH066	0 - < 0.42 weight-%
CAS No.: 78-83-1 EC No.: 201-148-0	2-methylpropan-1-ol Eye Dam. 1 (H318), Flam. Liq. 3 (H226), STOT SE 3 (H335, H336), Skin Irrit. 2 (H315) Danger	0 - < 0.09 weight-%
CAS No.: 1330-20-7 EC No.: 215-535-7	xylene Acute Tox. 4 (H332, H312), Flam. Liq. 3 (H226), Skin Irrit. 2 (H315) Warning	0 - < 0.05 weight-%
CAS No.: 70657-70-4 EC No.: 274-724-2	2-methoxypropyl acetate Flam. Liq. 3 (H226), Repr. 1B (H360D***), STOT SE 3 (H335) Danger	0 - < 0.003 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:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician. Get medical advice/attention if you feel unwell.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing.

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1



Page 4/18

REDOCOL Colour Edging Pen (various colours)

After eye contact:

Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse cautiously with water for several minutes.

Following ingestion:

Rinse mouth. Let water be drunk in little sips (dilution effect). Get medical advice/attention if you feel unwell.

Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider.

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

Serious eye damage/eye irritation, Dizziness, Dizziness.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray jet, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO₂).
Fire extinguishers Fire class B.

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Highly flammable, Combustible.

Hazardous combustion products:

In case of fire may be liberated: Carbon dioxide, Carbon monoxide, Pyrolysis products, toxic, carbon black.

In case of fire: Gases/vapours, toxic.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Special danger of slipping by leaking/spilling product. Remove persons to safety.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8.

6.2. Environmental precautions

Discharge into the environment must be avoided. Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

Soak up inert absorbent and dispose as waste requiring special attention.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up:

Clean with detergents. Avoid solvent cleaners. Water (with cleaning agent).

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1

Page 5/18



REDOCOL Colour Edging Pen (various colours)

6.4. Reference to other sections

Safe handling: see section 7.

Personal protection equipment: see section 8.

Disposal: see section 13.

6.5. Additional information

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Do not breathe gas/fumes/vapour/spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Wear personal protection equipment (refer to section 8).

Fire prevent measures:

This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment). Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking.

Measures to prevent aerosol and dust generation:

Technical ventilation of workplace.

Environmental precautions:

Discharge into the environment must be avoided.

Advices on general occupational hygiene

Wash hands before breaks and after work. After cleaning apply high-fat content skin care cream. When using do not eat, drink or smoke. Avoid contact with eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Packaging materials:

Keep/Store only in original container.

Requirements for storage rooms and vessels:

Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on storage assembly:

Do not store together with: Strong acid, Base, alkaline materials, Oxidising agent, strong.

Storage class (TRGS 510, Germany): 3 - Flammable liquids

Further information on storage conditions:

Protect from sunlight. Store in a well-ventilated place.

7.3. Specific end use(s)

Recommendation:

Keep out of the reach of children.

Industrial sector specific solutions:

Solvent-based varnishes/wood glazes, low in aromatics

GISCODE:

M-KH03

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1



Page 6/18

REDOCOL Colour Edging Pen (various colours)

SECTION 8: Exposure controls/personal protection

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
IE	n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	① 150 ppm (710 mg/m ³) ② 200 ppm (950 mg/m ³)
MEL/OES (GB)	n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	① 150 ppm (724 mg/m ³) ② 200 ppm (966 mg/m ³)
IOELV (EU)	n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	① 50 ppm (241 mg/m ³) ② 150 ppm (723 mg/m ³)
IE	4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	① 20 ppm (83 mg/m ³) ② 50 ppm (208 mg/m ³) ⑤ (may be absorbed through the skin)
IOELV (EU)	4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	① 20 ppm (83 mg/m ³) ② 50 ppm (208 mg/m ³)
WEL (GB)	4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	① 50 ppm (208 mg/m ³) ② 100 ppm (416 mg/m ³) ⑤ (may be absorbed through the skin)
IE	ethanol CAS No.: 64-17-5 EC No.: 200-578-6	② 1,000 ppm
WEL (GB)	ethanol CAS No.: 64-17-5 EC No.: 200-578-6	① 1,000 ppm (1,920 mg/m ³)
IE	2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	① 50 ppm (275 mg/m ³) ② 100 ppm (550 mg/m ³) ⑤ (may be absorbed through the skin)
IOELV (EU)	2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	① 50 ppm (275 mg/m ³) ② 100 ppm (550 mg/m ³) ⑤ (may be absorbed through the skin)
WEL (GB)	2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	① 50 ppm (274 mg/m ³) ② 100 ppm (548 mg/m ³) ⑤ (may be absorbed through the skin)
WEL (GB)	Naphtha (petroleum), hydrodesulfurized heavy CAS No.: 64742-82-1 EC No.: 927-241-2	① 500 mg/m ³ ⑤ (Aromatics)
IE	titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	① 10 mg/m ³ ⑤ (inhalable fraction)
IE	titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	① 4 mg/m ³ ⑤ (respirable fraction)
WEL (GB)	titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	① 10 mg/m ³ ⑤ (inhalable fraction)

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1



Page 7/18

REDOCOL Colour Edging Pen (various colours)

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
WEL (GB)	titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	① 4 mg/m ³ ⑤ (respirable fraction)
WEL (GB)	Hydrocarbons, C9, aromatics CAS No.: 64742-95-6 EC No.: 918-668-5	① 500 mg/m ³ ⑤ (Aromatics)
IE	2-methylpropan-1-ol CAS No.: 78-83-1 EC No.: 201-148-0	① 50 ppm (150 mg/m ³) ② 75 ppm (225 mg/m ³)
WEL (GB)	2-methylpropan-1-ol CAS No.: 78-83-1 EC No.: 201-148-0	① 50 ppm (154 mg/m ³) ② 75 ppm (231 mg/m ³)
IE	xylene CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m ³) ② 100 ppm (442 mg/m ³) ⑤ (may be absorbed through the skin)
IOELV (EU)	xylene CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (221 mg/m ³) ② 100 ppm (442 mg/m ³) ⑤ (may be absorbed through the skin)
WEL (GB)	xylene CAS No.: 1330-20-7 EC No.: 215-535-7	① 50 ppm (220 mg/m ³) ② 100 ppm (441 mg/m ³) ⑤ (may be absorbed through the skin)

8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	① parameter ② Test material ③ Time of sampling ④ Remark
BMGV (GB)	4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	20 µmol/L	① 4-methylpentan - 2-one ② urine ③ end of exposure or end of shift
BMGV (GB)	xylene CAS No.: 1330-20-7 EC No.: 215-535-7	650 mmol/ mol creatini ne	① methyl hippuric acid ② urine ③ end of exposure or end of shift

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	102.34 mg/ m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	960 mg/m ³	① DNEL worker ② Acute - inhalation, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	859.7 mg/m ³	① DNEL Consumer ② Acute - inhalation, systemic effects
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	480 mg/m ³	① DNEL worker ② Long-term - inhalation, local effects

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1



Page 8/18

REDOCOL Colour Edging Pen (various colours)

Substance name	DNEL value	① DNEL type ② Exposure route
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	83 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	14.7 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	208 mg/m ³	① DNEL worker ② Acute - inhalation, systemic effects
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	11.8 mg/kg	① DNEL worker ② Long-term - dermal, systemic effects
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	4.2 mg/kg	① DNEL worker ② Long-term - dermal, systemic effects
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	4.2 mg/m ³	① DNEL worker ② Long-term - oral, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	950 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	114 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	1,900 mg/m ³	① DNEL worker ② Acute - inhalation, local effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	950 mg/m ³	① DNEL Consumer ② Acute - inhalation, local effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	343 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	206 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	87 mg/kg bw/day	① DNEL worker ② Long-term - oral, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	87 mg/kg bw/day	① DNEL worker ② Acute - oral, systemic effects
Naphtha (petroleum), hydrodesulfurized heavy CAS No.: 64742-82-1 EC No.: 927-241-2	1,500 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
Naphtha (petroleum), hydrodesulfurized heavy CAS No.: 64742-82-1 EC No.: 927-241-2	900 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects
Naphtha (petroleum), hydrodesulfurized heavy CAS No.: 64742-82-1 EC No.: 927-241-2	300 mg/kg	① DNEL worker ② Long-term - dermal, systemic effects
Naphtha (petroleum), hydrodesulfurized heavy CAS No.: 64742-82-1 EC No.: 927-241-2	300 mg/kg	① DNEL Consumer ② Long-term - dermal, systemic effects
titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	10 mg/m ³	① DNEL worker ② Long-term - inhalation, local effects

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1



Page 9/18

REDOCOL Colour Edging Pen (various colours)

Substance name	DNEL value	① DNEL type ② Exposure route
titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	700 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
Hydrocarbons, C9, aromatics CAS No.: 64742-95-6 EC No.: 918-668-5	150 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
Hydrocarbons, C9, aromatics CAS No.: 64742-95-6 EC No.: 918-668-5	32 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects
Hydrocarbons, C9, aromatics CAS No.: 64742-95-6 EC No.: 918-668-5	25 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
Hydrocarbons, C9, aromatics CAS No.: 64742-95-6 EC No.: 918-668-5	11 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
Hydrocarbons, C9, aromatics CAS No.: 64742-95-6 EC No.: 918-668-5	11 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
2-methylpropan-1-ol CAS No.: 78-83-1 EC No.: 201-148-0	310 mg/m ³	① DNEL worker ② Long-term - inhalation, local effects
2-methylpropan-1-ol CAS No.: 78-83-1 EC No.: 201-148-0	55 mg/m ³	① DNEL Consumer ② Long-term - inhalation, local effects

Substance name	PNEC Value	① PNEC type
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.18 mg/l	① PNEC aquatic, freshwater
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.018 mg/l	① PNEC aquatic, marine water
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	35.6 mg/l	① PNEC sewage treatment plant
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.981 mg/l	① PNEC sediment, freshwater
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.0981 mg/l	① PNEC sediment, marine water
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.36 mg/l	① PNEC aquatic, intermittent release
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	0.0903 mg/l	① PNEC soil, freshwater
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	0.96 mg/l	① PNEC aquatic, freshwater
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	0.76 mg/l	① PNEC aquatic, marine water
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	580 mg/l	① PNEC sewage treatment plant
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	3.6 mg/kg	① PNEC sediment, freshwater

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1



Page 10/18

REDOCOL Colour Edging Pen (various colours)

Substance name	PNEC Value	① PNEC type
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	0.63 mg/kg	① PNEC soil, freshwater
titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	0.127 mg/l	① PNEC aquatic, freshwater
titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	1 mg/l	① PNEC aquatic, marine water
titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	100 mg/l	① PNEC sewage treatment plant
titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	1,000 mg/kg	① PNEC sediment, freshwater
titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	100 mg/kg	① PNEC sediment, marine water
titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	1,667 mg/kg	① PNEC secondary poisoning
titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	0.61 mg/l	① PNEC aquatic, intermittent release
titanium dioxide CAS No.: 13463-67-7 EC No.: 236-675-5	100 mg/kg	① PNEC soil, freshwater
2-methylpropan-1-ol CAS No.: 78-83-1 EC No.: 201-148-0	400 µg/l	① PNEC aquatic, freshwater
2-methylpropan-1-ol CAS No.: 78-83-1 EC No.: 201-148-0	40 µg/l	① PNEC aquatic, marine water
2-methylpropan-1-ol CAS No.: 78-83-1 EC No.: 201-148-0	10 mg/l	① PNEC sewage treatment plant
2-methylpropan-1-ol CAS No.: 78-83-1 EC No.: 201-148-0	1.56 mg/kg bw/day	① PNEC sediment, freshwater
2-methylpropan-1-ol CAS No.: 78-83-1 EC No.: 201-148-0	156 mg/kg bw/day	① PNEC sediment, marine water
2-methylpropan-1-ol CAS No.: 78-83-1 EC No.: 201-148-0	11 mg/l	① PNEC aquatic, intermittent release

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. generation/formation of aerosols: Technical ventilation of workplace.

8.2.2. Personal protection equipment



Eye/face protection:

In normal use (no eye contact): No goggles required. Eye glasses with side protection EN 166

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1

Page 11/18



REDOCOL Colour Edging Pen (various colours)

Skin protection:

In full contact: Suitable material: Butyl caoutchouc (butyl rubber), Thickness of the glove material >0,7 mm, Breakthrough time: >480 min.

In splash contact: Suitable material: Butyl caoutchouc (butyl rubber), NBR (Nitrile rubber) Thickness of the glove material >0,4 mm, Breakthrough time: >120 min.

In normal use (no skin contact): No gloves required.

Tested protective gloves must be worn EN ISO 374.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Thermal hazards:

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

Other protection measures:

Wear suitable protective clothing.

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: by respective labeling.

Odour: ester

Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	114 - 128 °C			
Decomposition temperature	<i>not determined</i>			
Flash point	14 °C			
Evaporation rate	<i>not determined</i>			
Auto-ignition temperature	<i>not determined</i>			
Upper/lower flammability or explosive limits	<i>not determined</i>			
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Density	0.9 g/cm ³	20 °C		
Relative density	<i>not determined</i>			
Bulk density	<i>not determined</i>			
Water solubility	partially miscible			
Partition coefficient: n-octanol/water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>not determined</i>			

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Risk of explosion if heated under confinement. Highly flammable liquid and vapour.

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1

Page 12/18



REDOCOL Colour Edging Pen (various colours)

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions /Exothermic reaction with: Strong acid, Base, Oxidising agent, strong.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Oxidising agent.

10.6. Hazardous decomposition products

In case of fire may be liberated: Flammable solvent vapor mixtures are possible.
Gases/vapours, toxic.

SECTION 11: Toxicological information

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

Substance name	Toxicological information
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	LD₅₀ oral: 10,760 mg/kg (Ratte) OECD Prüfrichtlinie 423 LD₅₀ dermal: >14,112 mg/kg (Rabbit) OECD Prüfrichtlinie 402 LC₅₀ Acute inhalation toxicity (dust/mist): 23.4 mg/l 4 h (Rat) OECD Prüfrichtlinie 403
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	LD₅₀ oral: >2,000 - ≤5,000 mg/kg (Rat) MSDS Distributor LD₅₀ dermal: >5,000 mg/kg (Rabbit) MSDS Distributor LC₅₀ Acute inhalation toxicity (vapour): >10 - ≤20 mg/l 4 h (Rat)
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	LD₅₀ oral: 8,530 mg/kg (Ratte) Dow Chemical Company Reports. Vol. MSD-1582 LD₅₀ dermal: >5,000 mg/kg (Kaninchen) Dow Chemical Company Reports. Vol. MSD-1582
Naphtha (petroleum), hydrodesulfurized heavy CAS No.: 64742-82-1 EC No.: 927-241-2	LD₅₀ oral: 5,000 mg/kg (Rat) OECD-Prüfrichtlinie 401 LC₅₀ Acute inhalation toxicity (dust/mist): >4.951 mg/l 4 h (Rat) OECD-Prüfrichtlinie 403 LD₅₀ dermal: >5,000 mg/kg (Rabbit) OECD-Prüfrichtlinie 402
xylene CAS No.: 1330-20-7 EC No.: 215-535-7	LD₅₀ oral: 4,300 mg/kg (Rat) AMA Archives of Industrial Health. Vol. 14, Pg. 387, 1956. LD₅₀ dermal: >1,700 mg/kg (Rabbit) Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 123, 1974. LC₅₀ Acute inhalation toxicity (dust/mist): 21.7 mg/l 4 h (Rat) Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 123, 1974.

Acute oral toxicity:

Harmful if swallowed.

Acute dermal toxicity:

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

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1

Page 13/18



REDOCOL Colour Edging Pen (various colours)

Acute inhalation toxicity:

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

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.

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 drowsiness or dizziness.

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.

Additional information:

No data available

11.2. Information on other hazards

No data available

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1

Page 14/18



REDOCOL Colour Edging Pen (various colours)

SECTION 12: Ecological information

12.1. Toxicity

Substance name	Toxicological information
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	LC₅₀ : 18 mg/l 4 d (fish, Pimephales promelas) OECD Prüfrichtlinie 203 EC₅₀ : 44 mg/l 2 d (crustaceans, Daphnia magna) EC₅₀ : 647.7 mg/l 3 d (Algae/water plant, Desmodesmus subspicatus) Wachstumshemmung NOEC : 200 mg/l (Algae/water plant, Desmodesmus subspicatus) Wachstumshemmung IC₅₀ : 356 mg/l 2 d (Tetrahymena)
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	LC₅₀ : >100 mg/l (fish) MSDS Distributor EC₅₀ : >100 mg/l (fish) MSDS Distributor IC₅₀ : >100 mg/l (fish) MSDS Distributor LC₅₀ : >100 mg/l (crustaceans) MSDS Distributor EC₅₀ : >100 mg/l (crustaceans) MSDS Distributor IC₅₀ : >100 mg/l (crustaceans) MSDS Distributor LC₅₀ : ≤100 mg/l (Algae/water plant) MSDS Distributor EC₅₀ : ≤100 mg/l (Algae/water plant) MSDS Distributor IC₅₀ : ≤100 mg/l (Algae/water plant) MSDS Distributor
Naphtha (petroleum), hydrodesulfurized heavy CAS No.: 64742-82-1 EC No.: 927-241-2	LC₅₀ : >10 - ≤30 mg/l 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) C9-C10 EC₅₀ : >22 - ≤46 mg/l 2 d (crustaceans, Daphnia magna (Big water flea)) C9-C10 EC₅₀ : >1,000 mg/l 3 d (Algae/water plant, Pseudokirchneriella subcapitata) C9-C10 LC₅₀ : 3.6 - 96 mg/l 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) C9-C11 EC₅₀ : >22 - ≤46 mg/l 2 d (crustaceans, Daphnia magna (Big water flea)) C9-C11 EC₅₀ : >1,000 mg/l 3 d (Algae/water plant, Pseudokirchneriella subcapitata) C9-C11
xylene CAS No.: 1330-20-7 EC No.: 215-535-7	LC₅₀ : 3.3 - 780 mg/l 4 d (fish) Bailey, H.C., D.H.W. Liu, and H.A. Javitz 1985. Time/Toxicity Relationships in Short-Term Static, Dynamic, and Plug-Flow Bioassays. In: R.C.Bahner and D.J.Hansen (Eds.), Aquatic Toxicology and Hazard Assessment, 8th Symposium, ASTM STP 891, Philadelphia, PA :193-212 LC₅₀ : 8.5 - 8.5 mg/l 2 d (crustaceans)

12.2. Persistence and degradability

Substance name	Biodegradation	Remark
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	Yes, rapidly	83 % (aerob; Expositionsdauer: 28 d)(OECD Prüfrichtlinie 301D)
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	Yes, rapidly	
Naphtha (petroleum), hydrodesulfurized heavy CAS No.: 64742-82-1	Yes, rapidly	

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1



Page 15/18

REDOCOL Colour Edging Pen (various colours)

Substance name	Biodegradation	Remark
EC No.: 927-241-2		

12.3. Bioaccumulative potential

Substance name	Log K _{ow}	Bioconcentration factor (BCF)
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	2.3	
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	1.31	

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

Substance name	Results of PBT and vPvB assessment
n-butyl acetate CAS No.: 123-86-4 EC No.: 204-658-1	—
4-methylpentan-2-one CAS No.: 108-10-1 EC No.: 203-550-1	—
2-methoxy-1-methylethyl acetate CAS No.: 108-65-6 EC No.: 203-603-9	—
Naphtha (petroleum), hydrodesulfurized heavy CAS No.: 64742-82-1 EC No.: 927-241-2	—
xylene CAS No.: 1330-20-7 EC No.: 215-535-7	—

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

08 01 11 * Waste paint and varnish containing organic solvents or other dangerous substances

*: Evidence for disposal must be provided.

Waste code packaging:

15 01 05 composite packaging

Directive 2008/98/EC (Waste Framework Directive):

HP 3 Flammable

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Completely emptied packages can be recycled.

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1

Page 16/18



REDOCOL Colour Edging Pen (various colours)





Other disposal recommendations:

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.2. Additional information

Return to Distributor.

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 3363	UN 3363	UN 3363	UN 3363
14.2. UN proper shipping name			
DANGEROUS GOODS IN MACHINERY or DANGEROUS GOODS IN APPARATUS (n-Butyl acetate)	DANGEROUS GOODS IN MACHINERY or DANGEROUS GOODS IN APPARATUS (n-Butyl acetate)	DANGEROUS GOODS IN MACHINERY or DANGEROUS GOODS IN APPARATUS (n-Butyl acetate)	DANGEROUS GOODS IN MACHINERY or DANGEROUS GOODS IN APPARATUS (n-Butyl acetate)
14.3. Transport hazard class(es)			
 9	 9	 9	 9
14.4. Packing group			
No data available			
14.5. Environmental hazards			
No	No	No	No
14.6. Special precautions for user			
Special provisions: Limited quantity (LQ): SP301 Excepted Quantities (EQ): Hazard identification number (Kemler No.): Classification code: M11 Remark: -	Special provisions: Excepted Quantities (EQ): Classification code: M11 Remark: -	Special provisions: Limited quantity (LQ): SP301 Excepted Quantities (EQ): EmS-No.: Remark: Stowage Category A	Special provisions: Limited quantity (LQ): SP301 Excepted Quantities (EQ): Remark:

14.7. Maritime transport in bulk according to IMO instruments

not determined

Additional information:

-

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1

Page 17/18



REDOCOL Colour Edging Pen (various colours)

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Restrictions on use:

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented. Observe employment restrictions for women of child-bearing age. Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive], Hazard categories:

- P5a Flammable Liquids, Category 1 or 2
- P5b Flammable liquids
- P5c Flammable liquids of Categories 2 or 3, not covered by P5a and P5b

This product meets the requirements of Regulation (EC) No. 1935/2004 on the limitation of VOC content. Directive 2004/42/EC on the limitation of emissions of volatile organic compounds.

VOC content Solvents Regulation (31st BImSchV) Annex VI, Section 4.2 for coating materials for wooden surfaces: 882 g/L.

15.1.2. National regulations

[GB] National regulations

Other regulations, restrictions and prohibition regulations

Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)

Regulation 850/2004/EC on persistent organic pollutants (POP)

Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)

15.2. Chemical Safety Assessment

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

SECTION 16: Other information

16.1. Indication of changes

- 1.1 Product identifier UFI: Number
- 2.1 Classification of the substance or mixture
- 3.2 Mixtures
- 8.2.2 Personal protection equipment
- 10.6 Hazardous decomposition products
- 15.1 National regulations

16.2. Abbreviations and acronyms

For abbreviations and acronyms, see ECHA: Guidance on information requirements and chemical safety assessment, Chapter R.20 (list of terms and abbreviations).

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]

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids (<i>Flam. Liq. 2</i>)	H225: Highly flammable liquid and vapour.	
Acute toxicity (oral) (<i>Acute Tox. 4</i>)	H302: Harmful if swallowed.	
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	

SAFETY DATA SHEET

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

Revision date: 4 Sep 2021

Print date: 10 Sep 2021

Version: 0.1

Page 18/18



REDOCOL Colour Edging Pen (various colours)

Hazard classes and hazard categories	Hazard statements	Classification procedure
STOT-single exposure (STOT SE 3)	H336: May cause drowsiness or dizziness.	

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
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.
H360D	May damage the unborn child.
H411	Toxic 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

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.