

# SAFETY DATA SHEET

ACCORDING TO REGULATION (EC) 1907/2006



Product name: **4540 Rust Solvent**

Creation date: **16.05.2024**, Revision: **12.06.2024**, Version: **3.1**

## Section 1: Identification of the substance/mixture and of the company/undertaking

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### 1.1 Product identifier

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**Product name**

4540 Rust Solvent

**UFI:**

3TJD-G03Y-U00T-06D1



<https://my.chemius.net/p/JQjkVN/en/pd/en>

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

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**Relevant identified uses**

No information.

**Uses advised against**

No information.

### 1.3 Details of the supplier of the safety data sheet

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**Supplier**

SILCO d.o.o.  
Sentrupert 5a  
3303 Gomilsko, Slovenia  
+386 3 703 3180  
msds@silco.si

### 1.4 Emergency Telephone Number

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**Emergency**

111

**Supplier**

112

## Section 2: Hazards identification

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### 2.1 Classification of the substance or mixture

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

Flam. Liq. 1; H224 Extremely flammable liquid and vapour.

Press. Gas; H280 Contains gas under pressure; may explode if heated.

Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.

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***silco***<sup>®</sup>

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## 2.2 Label elements

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



**Signal word: DANGER**

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H304 May be fatal if swallowed and enters airways.

EUH066 Repeated exposure may cause skin dryness or cracking.

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

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

P501 Dispose of contents/container in accordance with national regulation.

### Contains:

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics  
distillates (petroleum), dewaxed light paraffinic, hydrotreated

## 2.3 Other hazards

### PBT/vPvB

No information.

### Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

### Additional information

No information.

## Section 3: Composition/information on ingredients

### 3.1 Substances

For mixtures see 3.2.

### 3.2 Mixtures

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Name	CAS EC Index Reach	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	- 918-481-9 - 01-2119457273-39	40-50	Asp. Tox. 1; H304 EUH066	/
<b>isobutane</b>	75-28-5 200-857-2 601-004-00-0 01-2119485395-27	25-30	Flam. Gas 1; H220 Press. Gas; H280	/
<b>lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based</b>	94733-15-0 305-594-8 649-506-00-9 01-2119486987-11	10-15	Asp. Tox. 1; H304	/

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Name	CAS EC Index Reach	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits
<b>distillates (petroleum), dewaxed light paraffinic, hydro treated</b>	91995-40-3 295-301-9 649-494-00-5 01-2119488517-24	10-15	Asp. Tox. 1; H304	/
<b>propane</b>	74-98-6 200-827-9 601-003-00-5 01-2119486944-21	10-15	Flam. Gas 1; H220 Press. Gas; H280	/
<b>2-butoxyethanol</b>	111-76-2 203-905-0 603-014-00-0 01-2119475108-36	1-2.5	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 3; H331	oral: ATE = 1200 mg/kg bw inhalation: ATE = 3 mg/l (vapours)

## Notes for substances

**C** Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers.

In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

**U** When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned:  
Press. Gas (Comp.)  
Press. Gas (Liq.)  
Press. Gas (Ref. Liq.)  
Press. Gas (Diss.)  
Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

## Section 4: First aid measures

### 4.1 Description of first aid measures

#### General notes

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Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. When it is suspected, that there may still be harmful vapours/fumes present in the air, respiratory protection (mask; self contained breathing apparatus) must be used. Wash contaminated clothing with water before removing or use gloves.

#### **Following inhalation**

Remove patient to fresh air - move out of dangerous area. In case of unconsciousness bring patient into stable side position and seek medical attention. If breathing is irregular or respiratory arrest occurs provide artificial respiration. Keep at rest in a position comfortable for breathing. Seek medical help immediately.

#### **Following skin contact**

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. Consult a physician.

#### **Following eye contact**

Immediately flush eyes with running water, keeping eyelids apart. Seek medical help.

#### **Following ingestion**

Do not induce vomiting! Aspiration hazard if swallowed. Can enter lungs and cause damage. If vomiting occurs, the patient should hold the head lower than the hips, because it reduces the possibility of aspiration. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Immediately consult a doctor. Show the physician the safety data sheet or label.

## **4.2 Most important symptoms and effects, both acute and delayed**

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#### **Following inhalation**

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation.

#### **Following skin contact**

Contact with skin may cause irritation (redness, itching). Repeated exposure may cause dry skin or cracked skin.

#### **Following eye contact**

Contact with eyes can cause irritation (redness, tearing, pain).

#### **Following ingestion**

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort. Aspiration into the lungs causes coughing, shortness of breath and may lead to chemical pneumonia.

## **4.3 Indication of any immediate medical attention and special treatment needed**

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Treat symptomatically. After the product has been ingested vomiting can cause aspiration into the lungs. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided.

## **Section 5: Firefighting measures**

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### **5.1 Extinguishing media**

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#### **Suitable extinguishing media**

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

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## **Unsuitable extinguishing media**

Full water jet.

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

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### **Hazardous combustion products**

In case of a fire toxic gases can be generated; do not inhale gases/smoke.

## **5.3 Advice for firefighters**

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### **Protective actions**

In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Prolonged heating can cause an explosion. Vapours can form explosive mixtures with air. Cool containers at risk with water spray. If possible remove containers from endangered area.

### **Special protective equipment for fire-fighters**

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

### **Additional information**

No information.

## **Section 6: ACCIDENTAL RELEASE MEASURES**

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### **6.1 Personal precautions, protective equipment and emergency procedures**

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#### **For non-emergency personnel**

##### **Protective equipment**

No information.

##### **Precautionary measures**

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

##### **Emergency procedures**

No action shall be taken involving any personal risk or without suitable training. Prevent access to unprotected personnel. Evacuate the danger zone. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

##### **For emergency responders**

Use personal protective equipment.

### **6.2 Environmental precautions**

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Do not allow product to reach water/drains/sewage systems or permeable soil. In case of release into the environment, inform the relevant authorities.

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

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#### **For containment**

Stem the spill if this does not pose risks.

#### **For cleaning up**

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Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Use only explosion-proof instruments and equipment. Use spark-proof tools. Prevent release into the sewer, water, basements or confined areas. Ventilate the premises. Clean contaminated area with plenty of water.

#### **Other information**

No information.

## **6.4 Reference to other sections**

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See also sections 8 and 13.

## **Section 7: Handling and storage**

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### **7.1 Precautions for safe handling**

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#### **Protective measures**

##### **Measures to prevent fire**

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Take precautionary measures against static discharges. Vapours are heavier than air and spread along the floor. They form explosive mixtures with air.

##### **Measures to prevent aerosol and dust generation**

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

##### **Measures to protect the environment**

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

##### **Other measures**

No information.

##### **Advice on general occupational hygiene**

Use good personal hygiene practices - wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Remove contaminated clothes and wash them before reuse. Wear suitable protective equipment; see Section 8.

### **7.2 Conditions for safe storage, including any incompatibilities**

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#### **Technical measures and storage conditions**

Keep in a cool, dry and well ventilated place. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep away from oxidising substances. Keep away from sources of ignition - no smoking.

#### **Packaging materials**

Store only in original container.

#### **Requirements for storage rooms and vessels**

Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

#### **Storage temperature**

No information.

#### **Storage class**

No information.

#### **Further information on storage conditions**

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No information.

## 7.3 Specific end use(s)

### Recommendations

No information.

### Industrial sector specific solutions

No information.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure limit values

Name	mg/m <sup>3</sup>	ml/m <sup>3</sup>	Short-term value mg/m <sup>3</sup>	Short-term value ml/m <sup>3</sup>	Remark	Biological Tolerance Values
<b>2-Butoxyethanol (111-76-2)</b>	123	25	246	50	Sk, BMGV	240 mmol butoxyacetic acid/mol creatinine in urine - Post shift

#### Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

#### DNEL/DMEL values

##### For product

No information.

##### For components

Name	Type	Exposure route	exp. frequency	Remark	Value
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	Worker	inhalation	long term local effects	8h, aerosol	5.4 mg/m <sup>3</sup>
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	Consumer	inhalation	long term local effects	24 h, aerosol	1.2 mg/m <sup>3</sup>



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Name	Type	Exposure route	exp. frequency	Remark	Value
<b>lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based</b>	Worker	inhalation	long term systemic effects	/	2.7 mg/cm <sup>2</sup>
<b>lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based</b>	Worker	inhalation	long term local effects	/	5.6 mg/cm <sup>2</sup>
<b>lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based</b>	Worker	dermal	long term systemic effects	/	1 mg/kg bw/day
<b>lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based</b>	Consumer	oral	long term systemic effects	/	0.74 mg/kg bw/day
<b>2-butoxyethanol</b>	Worker	inhalation	long term systemic effects	/	98 mg/m <sup>3</sup>
<b>2-butoxyethanol</b>	Worker	inhalation	short term systemic effects	/	1091 mg/m <sup>3</sup>
<b>2-butoxyethanol</b>	Worker	inhalation	short term local effects	/	246 mg/m <sup>3</sup>
<b>2-butoxyethanol</b>	Worker	dermal	long term systemic effects	/	125 mg/kg bw/day
<b>2-butoxyethanol</b>	Worker	dermal	short term systemic effects	/	89 mg/kg bw/day
<b>2-butoxyethanol</b>	Consumer	inhalation	long term systemic effects	/	59 mg/m <sup>3</sup>

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Name	Type	Exposure route	exp. frequency	Remark	Value
<b>2-butoxyethanol</b>	Consumer	inhalation	short term systemic effects	/	426 mg/m <sup>3</sup>
<b>2-butoxyethanol</b>	Consumer	inhalation	short term local effects	/	147 mg/m <sup>3</sup>
<b>2-butoxyethanol</b>	Consumer	dermal	long term systemic effects	/	75 mg/kg bw/day
<b>2-butoxyethanol</b>	Consumer	dermal	short term systemic effects	/	89 mg/kg bw/day
<b>2-butoxyethanol</b>	Consumer	oral	long term systemic effects	/	6.3 mg/kg bw/day
<b>2-butoxyethanol</b>	Consumer	oral	short term systemic effects	/	26.7 mg/kg bw/day

## PNEC values

### For product

No information.

### For components

Name	Exposure route	Remark	Value
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	food chain	oral	9.33 mg / kg food
<b>lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based</b>	food chain	oral	9.33 mg / kg food
<b>2-butoxyethanol</b>	fresh water	/	8.8 mg/L
<b>2-butoxyethanol</b>	water, intermittent release	/	26.4 mg/L
<b>2-butoxyethanol</b>	marine water	/	0.88 mg/L
<b>2-butoxyethanol</b>	water treatment plant	/	463 mg/L
<b>2-butoxyethanol</b>	fresh water sediment	dry weight	34.6 mg/kg
<b>2-butoxyethanol</b>	marine water sediment	dry weight	3.46 mg/kg
<b>2-butoxyethanol</b>	soil	dry weight	2.33 mg/kg
<b>2-butoxyethanol</b>	secondary poisoning	food	0.02 g/kg

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## 8.2 Exposure controls

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### Appropriate engineering control

#### Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols.

#### Structural measures to prevent exposure

No information.

#### Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse.

#### Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

### Personal protective equipment

#### Eye and face protection

Safety glasses with side protection (BS EN ISO 16321-1:2022).

#### Hand protection

Protective gloves (EN ISO 374-1:2016). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The penetration time is determined by the protective glove manufacturer and must be observed.

### Appropriate materials

#### Skin protection

Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2012). At high risk of skin exposure chemical suits (BS EN 13034:2005+A1:2009) and boots may be required (BS EN ISO 20345:2022+A1:2024).

#### Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387). For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard BS EN 137, BS EN 138.

#### Thermal hazards

No information.

### Environmental exposure controls

#### Substance/mixture related measures to prevent exposure

No information.

#### Instruction measures to prevent exposure

No information.

#### Organisational measures to prevent exposure

No information.

#### Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

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## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Important health, safety and environmental information

Physical state	liquid
Shape	aerosol
Colour	colourless
Odour	No information.
Odour threshold	No information.
Melting/freezing point or softening point	No information.
Boiling point or initial boiling point and boiling range	No information.
Flammability	No information.
Lower and upper explosion limit	1.5 – 10.9 % v/v (propellant) 1.1 – 10.6 % v/v (2-butoxyethanol)
Flash point	Not relevant
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	substance/mixture is non-soluble (in water) Does not apply
Viscosity	No information.
Solubility	No information.
Partition coefficient n-octanol/water (log value)	No information.
Vapour pressure	0.8 hPa at 20 °C
Density	0.817 g/cm <sup>3</sup> (data refers to the liquid portion of the product)
Relative vapour/gas density	No information.
Particle characteristics	No information.

### 9.2 Other information

#### Information with regard to physical hazard classes

No information.

#### Other safety characteristics

Weight organic solvents	583 g/l 84 %
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## Section 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

No information.

### 10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

### 10.3 Possibility of hazardous reactions

Vapours and air can form flammable or explosive mixtures.

### 10.4 Conditions to avoid

Protect from heat, direct sunlight, open fire, sparks.

### 10.5 Incompatible materials

Oxidants.

### 10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

## Section 11: Toxicological information

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

#### (a) Acute toxicity

##### For components

Name	Exposure route	Type	Species	Time	Value	Method	Remark
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	oral	LD <sub>50</sub>	rat	/	> 5000 mg/kg	/	/

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Name	Exposure route	Type	Species	Time	Value	Method	Remark
<b>hydrocarbons , C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	dermal	LD <sub>50</sub>	rabbit	/	> 5000 mg/kg	/	/
<b>hydrocarbons , C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	inhalation	LC <sub>50</sub>	rat	4 h	4951 mg/m <sup>3</sup>	/	/
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	oral	LD <sub>50</sub>	rat	/	> 5000 mg/kg bw	/	/
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	dermal	LD <sub>50</sub>	rabbit	/	> 2000 mg/kg bw	/	/
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	inhalation	LC <sub>50</sub>	rat	/	> 5.53 mg/l	/	/
<b>lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based</b>	oral	LD <sub>50</sub>	rat	/	> 5000 mg/kg bw	/	/
<b>lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based</b>	dermal	LD <sub>50</sub>	rabbit	/	> 2000 mg/kg bw	/	/

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Name	Exposure route	Type	Species	Time	Value	Method	Remark
<b>lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based</b>	inhalation	LC <sub>50</sub>	rat	/	> 5.53 mg/l	/	/
<b>isobutane</b>	inhalation	LC <sub>50</sub>	rat	4 h	658 mg/l	/	/
<b>propane</b>	inhalation	LC <sub>50</sub>	rat	4 h	20 mg/l	/	/
<b>2-butoxyethanol</b>	oral	LD <sub>50</sub>	rat	/	560 mg/kg	/	/
<b>2-butoxyethanol</b>	dermal	LD <sub>50</sub>	rabbit	/	1800 mg/kg	/	/
<b>2-butoxyethanol</b>	oral	LD <sub>50</sub>	mouse	/	1200 mg/kg	/	/
<b>2-butoxyethanol</b>	inhalation	LC <sub>50</sub>	rat	4 h	2400 mg/l	/	dust/aerosol

## Additional information

The product is not classified as acutely toxic.

## (b) Skin corrosion/irritation

### For components

Name	Species	Time	result	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	/	/	Prolonged and repeated contact can cause dermatitis.	/	/

## Additional information

The product is not classified as irritating to skin and eyes.

## (c) Serious eye damage/irritation

### For components

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Name	Exposure route	Species	Time	result	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	/	/	/	May cause irritation.	/	/

## (d) Respiratory or skin sensitisation

### For components

Name	Exposure route	Species	Time	result	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	dermal	Guinea pig (male)	6 h	Non sensitising.	Equivalent to OECD 406	24, 48 h; Experimental value

### Additional information

The product is not classified as sensitising.

## (e) (Germ cell) mutagenicity

### For components

Name	Type	Species	Time	result	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	in-vitro mutagenicity	mouse (lymphoma L5178Y)	/	Negative with metabolic activation, negative without metabolic activation.	Equivalent to OECD 476	experimental value
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	in-vitro mutagenicity	Bacteria ( <i>S. typhimurium</i> )	/	Negative with metabolic activation, negative without metabolic activation.	Equivalent to OECD 471	experimental value



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Creation date: **16.05.2024**, Revision: **12.06.2024**, Version: **3.1**

Name	Type	Species	Time	result	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	in-vitro mutagenicity	Yeast (S. cerevisiae)	/	Negative with metabolic activation, negative without metabolic activation.	Equivalent to OECD 471	experimental value
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	in-vivo mutagenicity	rat (male/female)	4 weeks	Negative.	EPA OTS 798.5395	5 days a week, 6 hours per day; experimental value
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	in-vivo mutagenicity	rat (male)	5 days	Negative.	Equivalent to OECD 475	experimental value

## (f) Carcinogenicity

For components

Name	Exposure route	Type	Species	Time	Value	result	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	/	/	/	/	/	Negative	OECD 453	read-across

## (g) Reproductive toxicity

For components

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Name	Reproductive toxicity type	Type	Species	Time	Value	result	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	Developmental toxicity	NOAEL	rat (female)	20 days	23900 mg/m <sup>3</sup>	/	Equivalent to OECD 414	6 h per day, experimental value
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	Effect on fertility	NOAEC (P/F1)	rat (male/female)	23 weeks	≥ 20000 mg/m <sup>3</sup> (air)	/	Equivalent to OECD 416	6h/day, 7 days/week, Experimental value
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	Effect on fertility	NOAEL (P/F1)	rat (male/female)	9 weeks	24700 mg/m <sup>3</sup> (air)	/	Equivalent to OECD 421	6h/day, 7 days/week, Experimental value

## Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

## (h) STOT-single exposure

For components

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Name	Exposure route	Type	Species	Time	Exposure	organ	Value	result	Method	Remarks
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	-	-	/	/	/	/	/	Category 3	/	no effect
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	inhalation	/	/	/	/	/	/	Vapours and aerosols of unusually high concentrations (in poorly ventilated or enclosed spaces) may cause respiratory irritation, headache, nausea, vomiting, dizziness, and in extreme cases unconsciousness and even asphyxiation.	/	/

**Additional information**

STOT SE (single exposure): Not classified.

**(i) STOT-repeated exposure**

No information.

**Additional information**

Repeated exposure may cause skin dryness or cracking. STOT RE (repeated exposure): Not classified.

**(j) Aspiration hazard**

**For components**

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Name	result	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	ASPIRATION HAZARD - Category 1	/	/

## Additional information

May be fatal if swallowed and enters airways.

## Symptoms related to the physical, chemical and toxicological characteristics

No information.

## Interactive effects

No information.

## 11.2 Information on other hazards

### Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

### Other information

No information.

## Section 12: Ecological information

### 12.1 Toxicity

#### Acute (short-term) toxicity

##### For components

Name	Type	Value	Exposure time	Species	organism	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	LL/EL/IL <sub>50</sub>	> 1000 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	/	/
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	LL/EL/IL <sub>50</sub>	1000 mg/L	48 h	crustacea	<i>Daphnia magna</i>	/	/

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Name	Type	Value	Exposure time	Species	organism	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatic s</b>	LL/EL/IL <sub>50</sub>	> 1000 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	/	/
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	LC <sub>50</sub>	> 100 mg/L	/	fish	/	/	/
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	EC <sub>50</sub>	> 100 mg/L	/	<i>Daphnia</i>	/	/	/
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	EC <sub>50</sub>	> 100 mg/L	/	other aquatic organisms	/	/	/
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	TLm	> 1 mg/L	/	other aquatic organisms	/	/	/

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Name	Type	Value	Exposure time	Species	organism	Method	Remark
lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based	LC <sub>50</sub>	> 100 mg/L	/	fish	/	/	/
lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based	EC <sub>50</sub>	> 100 mg/L	/	<i>Daphnia</i>	/	/	/
lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based	EC <sub>50</sub>	> 100 mg/L	/	other aquatic organisms	/	/	/
lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based	TLm	> 1 mg/L	/	other aquatic organisms	/	/	/

Chronic (long-term) toxicity

For components

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Name	Type	Value	Exposure time	Species	organism	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	NOEL	2.6 mg/l	14 days	fish	<i>Pimephales promelas</i>	OECD 204	semi-static, fresh water, similar product GLP
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	NOEL	2.6 mg/l	21 days	crustacea	<i>Daphnia magna</i>	OECD 211	semi-static, fresh water, similar product GLP

## 12.2 Persistence and degradability

### Abiotic degradation, physical- and photo-chemical elimination

No information.

### Biodegradation

#### For components

Name	Type	Rate	Time	Evaluation	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	aerobic	/	/	inherently biodegradable	/	/

## 12.3 Bioaccumulative potential

### Partition coefficient n-octanol/water (log value)

#### For components

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Name	Value	Temperature °C	pH	Concentration	Method
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	5.8 - 7.6	/	/	/	/
<b>distillates (petroleum), dewaxed light paraffinic, hydrotreated</b>	> 6	/	/	/	/
<b>lubricating oils (petroleum), C18-40, solvent-dewaxed hydrocracked distillate-based</b>	> 6	/	/	/	/

## Bioconcentration factor (BCF)

For components

Name	Species	organism	Value	Duration	Evaluation	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	BCF	/	10 - 2500	/	high	/	/

## 12.4 Mobility in soil

Known or predicted distribution to environmental compartments

For components



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Name	Air	Water	Soil	Sediment	(Aquatic) Biota	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatic s</b>	/	/	/	/	/	Mackay level 3	Calculated value

## Surface tension

No information.

## Adsorption/Desorption

### For components

Name	Type	Criterion	Value	Evaluation	Method	Remark
<b>hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	Soil	log KOC	< 2.36	/	/	Calculated value

## 12.5 Results of PBT and vPvB assessment

No evaluation.

## 12.6 Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

## 12.7 Other adverse effects

No information.

## 12.8 Additional information

### For product

Product is not classified as hazardous for environment. Do not allow to reach ground water, water courses or sewage system.

### For components

**hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics**

Persistence and degradability: - chemical oxygen demand: 3500 mg/g.

## Section 13: Disposal considerations

# SAFETY DATA SHEET

ACCORDING TO REGULATION (EC) 1907/2006

**silco**<sup>®</sup>

Product name: **4540 Rust Solvent**

Creation date: **16.05.2024**, Revision: **12.06.2024**, Version: **3.1**

## 13.1 Waste treatment methods

### Product / Packaging disposal

#### Waste chemical

Do not allow product to reach drains/sewage systems. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

#### Waste codes / waste designations according to LoW

No information.

#### Packaging

Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents. Uncleaned containers should not be perforated, cut or welded. Empty containers represent a fire hazard as they may contain flammable product residues and vapours.

#### Waste codes / waste designations according to LoW

No information.

#### Waste treatment-relevant information

No information.





#### Sewage disposal-relevant information

No information.

#### Other disposal recommendations

No information.

## Section 14: Transport information

ADR/RID	IMDG	IATA	ADN
<b>14.1 UN number or ID number</b>			
UN 1950	UN 1950	UN 1950	UN 1950
<b>14.2 UN proper shipping name</b>			
AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS
<b>14.3 Transport hazard class(es)</b>			
2	2	2	2
			
<b>14.4 Packing group</b>			

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ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
<b>14.5 Environmental hazards</b>			
NO	NO	NO	NO
<b>14.6 Special precautions for user</b>			
Limited quantities 1 L Special provisions 190, 327, 344, 625 Packing Instructions P207, LP200 Special packing provisions PP87, RR6, L2 Transport category 2 Tunnel restriction code (D) Classification code 5F	Limited quantities 1 L EmS F-D, S-U Flash point °C	Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst) Y203 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg) 30 kg G Packing Instructions (Pkg Inst) 203 Maximum Net Quantity/Package (Max Net Qty/Pkg) 25 kg Special provisions A145, A167, A802	Limited quantities 1 L
<b>14.7 Maritime transport in bulk according to IMO instruments</b>			
	Goods may not be carried in bulk in bulk containers, containers or vehicles.		

## Section 15: Regulatory information

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and

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mixtures

**Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)**

not applicable

**Ingredients according to Regulation (EC) No 648/2004 on detergents**

≥ 30%: aliphatic hydrocarbons; < 5%: aromatic hydrocarbons

**Special instructions**

Observe the regulations on employment and protection against dangerous substances for young people, pregnant women and nursing mothers.

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## Section 16: Other information

**Indication of changes**

9.1 Information on basic physical and chemical properties 14. Transport information

**Key literature references and sources for data**

No information.

**Abbreviations and acronyms**

ATE - Acute Toxicity Estimate

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

CEN - European Committee for Standardisation

C&L - Classification and Labelling

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

CAS# - Chemical Abstracts Service number

CMR - Carcinogen, Mutagen, or Reproductive Toxicant

CSA - Chemical Safety Assessment

CSR - Chemical Safety Report

DMEL - Derived Minimal Effect Level

DNEL - Derived No Effect Level

DPD - Dangerous Preparations Directive 1999/45/EC

DSD - Dangerous Substances Directive 67/548/EEC

DU - Downstream User

EC - European Community

ECHA - European Chemicals Agency

EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)

EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)

EEC - European Economic Community

EINECS - European Inventory of Existing Commercial Substances

ELINCS - European List of notified Chemical Substances

EN - European Standard

EQS - Environmental Quality Standard

EU - European Union

Euphrac - European Phrase Catalogue

EWG - European Waste Catalogue (replaced by LoW - see below)

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GES - Generic Exposure Scenario  
GHS - Globally Harmonized System  
IATA - International Air Transport Association  
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air  
IMDG - International Maritime Dangerous Goods  
IMSBC - International Maritime Solid Bulk Cargoes  
IT - Information Technology  
IUCLID - International Uniform Chemical Information Database  
IUPAC - International Union for Pure Applied Chemistry  
JRC - Joint Research Centre  
Kow - octanol-water partition coefficient  
LC50 - Lethal Concentration to 50 % of a test population  
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)  
LE - Legal Entity  
LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)  
LR - Lead Registrant  
M/I - Manufacturer / Importer  
MS - Member States  
MSDS - Material Safety Data Sheet  
OC - Operational Conditions  
OECD - Organization for Economic Co-operation and Development  
OEL - Occupational Exposure Limit  
OJ - Official Journal  
OR - Only Representative  
OSHA - European Agency for Safety and Health at work  
PBT - Persistent, Bioaccumulative and Toxic substance  
PEC - Predicted Effect Concentration  
PNEC(s) - Predicted No Effect Concentration(s)  
PPE - Personal Protection Equipment  
(Q)SAR - Qualitative Structure Activity Relationship  
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
RIP - REACH Implementation Project  
RMM - Risk Management Measure  
SCBA - Self-Contained Breathing Apparatus  
SDS - Safety data sheet  
SIEF - Substance Information Exchange Forum  
SME - Small and Medium sized Enterprises  
STOT - Specific Target Organ Toxicity  
(STOT) RE - Repeated Exposure  
(STOT) SE - Single Exposure  
SVHC - Substances of Very High Concern  
UN - United Nations  
vPvB - Very Persistent and Very Bioaccumulative

## List of relevant H phrases

H220 Extremely flammable gas.  
H280 Contains gas under pressure; may explode if heated.  
H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
EUH066 Repeated exposure may cause skin dryness or cracking.

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