

SAFETY DATA SHEET ACCORDING TO REGULATION (EC) 1907/2006



Product name: **4540 Rust Solvent MoS2**

Creation date: **18.11.2020**, Revision: **17.03.2023**, version: **1.3**

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

4540 Rust Solvent MoS2



<https://my.chemius.net/p/qRw4u3/en/pd/en>

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

Relevant identified uses

Rust Remover Spray.

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Manufacturer

SILCO, D.O.O.
Šentrupert 5 a
3303 Gomilsko, Slovenia
+386 3 703 3180
msds@silco.si

1.4 Emergency Telephone Number

Emergency

112

Manufacturer

+386 3 703 3180

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Aerosol 1; H222 Extremely flammable aerosol.

Aerosol 1; H229 Pressurised container: May burst if heated.

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

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.

EUH066 Repeated exposure may cause skin dryness or cracking.

P101 If medical advice is needed, have product container or label at hand.

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, cycloalkanes, <2% aromatics

Distillates (petroleum), hydrotreated light naphthenic

Special provisions

Vapours and air can at inadequate ventilation form an explosive mixture.

2.3 Other hazards

PBT/vPvB

No information.

Endocrine disrupting properties

No information.

Additional information

No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

Name	CAS EC Index Reach	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	Notes for substances
hydrocarbons, C10-C13, n- alkanes, isoalkanes, cycloalkanes, <2% aromatics	- 918-481-9 - 01-2119457273-39	25-50	Asp. Tox. 1; H304 EUH066	/	/
isobutane	75-28-5 200-857-2 601-004-00-0 01-2119485395-27	20-25	Flam. Gas 1; H220 Press. Gas; H280	/	C, U
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6 265-156-6 649-466-00-2 01-2119480375-34	10-20	Asp. Tox. 1; H304	/	L
propane	74-98-6 200-827-9 601-003-00-5 01-2119486944-21	10-20	Flam. Gas 1; H220 Press. Gas; H280	/	U
butane	106-97-8 203-448-7 601-004-00-0 01-2119474691-32	2,5-10	Flam. Gas 1; H220 Press. Gas; H280	/	C
2-butoxyethanol	111-76-2 203-905-0 603-014-00-0 01-2119475108-36	1-2,5	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332	/	/

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.
L	The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method", Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.
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).

Product description

Substances: >30% aliphatic hydrocarbons; 5 % or over but less than 15 %: aromatic hydrocarbons

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency.

Following inhalation

Leave contaminated area - breathe fresh air. If symptoms develop and persist, seek medical attention.

Following skin contact

Immediately remove contaminated clothing. Wash affected skin areas immediately with plenty of water and soap. If symptoms develop and persist, seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

Following ingestion

Do not induce vomiting! Immediately consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Vapours are narcotic. Coughing, sneezing, nasal discharge, labored breathing. Intoxication, vertigo, headache, nausea.

Following skin contact

Prolonged and repeated exposure may cause redness, itching and cracking of the skin in sensitive people. Dermatitis. Repeated exposure may cause dry skin or cracked skin.

Following eye contact

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

Following ingestion

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

No information.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂).
Fire extinguishing powder.
Foam.

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

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

5.3 Advice for firefighters

Protective actions

In case of fire or heating do not breathe fumes/vapours. Prolonged heating can cause an explosion. Vapours are heavier than air and spread along floor. Vapours may form explosive mixtures with the air. Cool the endangered containers with water spray.

Special protective equipment for fire-fighters

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

Additional information

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Precautionary measures

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

Emergency procedures

Prevent access to unprotected personnel. Do not breathe vapour or mist.

For emergency responders

Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental large entry into water or ground occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

For containment

No information.

For cleaning up

Collect the spray cans and hand them over to an authorized waste disposal contractor. Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor.

OTHER INFORMATION

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Protect from open fire and other sources of ignition or heat. Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Take precautionary measures against static discharges. Use spark-proof tools. Vapours and air form explosive mixtures. Do not spray on a naked flame or incandescent material.

Measures to prevent aerosol and dust generation

Ensure good ventilation and extraction.

Measures to protect the environment

No information.

Other measures

No information.

Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Refer to instructions on label and regulations for safety and health at work. Do not eat, drink or smoke while working. Avoid contact with skin and eyes. Do not breathe vapours/mist.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep in well closed containers. Do not store in hallways and/or staircases. Do not expose to sun and temperatures exceeding 50°C. Keep container in a well ventilated place. Keep away from food, drink and animal feeding stuffs. Follow safe storage practices for packed compressed gas as described by the Compressed Gas Association or the relevant agency in the country where the product is used.

Packaging materials

No information.

Requirements for storage rooms and vessels

Keep only in original container.

Storage class

No information.

Further information on storage conditions

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 ³	ml/m ³	Short-term value mg/m ³	Short-term value ml/m ³	Remark	Biological Tolerance Values
2-Butoxyethanol (111-76-2)	123	25	246	50	Sk, BMGV	240 mmol butoxyacetic acid/mol creatinine in urine - Post shift 240 mmol butoxyacetic acid/mol creatinine in urine - Post shift
Butane (106-97-8)	1450	600	1810	750	Carc, (only applies if Butane contains more than 0.1% of buta-1,3-diene)	/

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

No information.

PNEC values

For product

No information.

For components

No information.

8.2 Exposure controls

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. Avoid contact with eyes and skin.
Do not breathe vapours/aerosols. Do not eat, drink or smoke while working. Keep away from foodstuffs, beverages and feed.

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.

Personal protective equipment

Eye and face protection

Tight fitting protective goggles (EN 166).

Hand protection

Protective gloves (EN 374). 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.

Appropriate materials

Material	Thickness	Penetration Time	Remark
Nitrile	≥ 0.45 mm	≥ 240 min	/

Skin protection

Cotton protective clothing and shoes that cover the entire foot (BS EN ISO 20345:2022).

Respiratory protection

Not needed under normal use and adequate ventilation. In case of insufficient ventilation wear suitable respiratory protection. In case of insufficient ventilation wear mask with filter AX (EN 14387). In case of intensive or longer exposure use self-contained breathing apparatus (BS EN 137).

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

No information.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state

liquid

Colour

yellowish

Odour

solvent like

Important health, safety and environmental information

Odour threshold	No information.
Melting point/Freezing point	No information.
Boiling point or initial boiling point and boiling range	No information.
Flammability	> 200 °C
Lower and upper explosion limit	No information.
Flash point	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	No information.
Viscosity	No information.
Solubility	Water: Insoluble
Partition	

coefficient	No information.
Vapour pressure	No information.
Density and/or relative density	Density: 0.69291 g/cm³ at 20 °C
Relative vapour density	No information.
Particle characteristics	No information.

9.2 OTHER INFORMATION

Weight organic solvents	85.5 %
Explosive properties	Product is not explosive. However, formation of explosive air/ vapour mixtures are possible.

Other information

Vapur pressure: 7,1 at 50°C

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

The product is stable under recommended storage and handling conditions.

10.4 Conditions to avoid

No special precautions required. Consider the directions for use and storage. Protect from heat, direct sunlight, open fire, sparks.

10.5 Incompatible materials

No information.

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.

Aldehydes. Carbon dioxide; Carbon monoxide.

SECTION 11: TOXICOLOGICAL INFORMATION

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

(a) Acute toxicity

For product

Exposure route	Type	Species	Time	value	Method	Remark
oral	LD ₅₀	rat	/	75999 mg/kg	/	ATE
dermal	LD ₅₀	rabbit	/	20540 mg/kg	/	ATE
inhalation	LC ₅₀	/	4 h	125 mg/l	/	ATE

For components

Name	Exposure route	Type	Species	Time	value	Method	Remark
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics	oral	LD ₅₀	rat	/	> 2000 mg/kg	/	/
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics	dermal	LD ₅₀	rat	/	> 2000 mg/kg	/	/
isobutane	inhalation	LC ₅₀	rat	4 h	> 50 mg/l	/	/

propane	inhalation	LC₅₀	rat	4 h	20 mg/l	/	/
butane	inhalation	LC₅₀	rat	4 h	658 mg/l	/	/
2-butoxyethanol	oral	LD₅₀	rat	/	1480 mg/kg	/	/
2-butoxyethanol	dermal	LD₅₀	rabbit	/	400 mg/kg	/	/
2-butoxyethanol	inhalation	LC₅₀	/	4 h	11 mg/l	/	ATEi

(b) Skin corrosion/irritation

No information.

Additional information

May cause skin irritation.

(c) Serious eye damage/irritation

No information.

(d) Respiratory or skin sensitisation

No information.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

No information.

(h) STOT-single exposure

No information.

(i) STOT-repeated exposure

No information.

Additional information

Repeated exposure may cause skin dryness or cracking.

(j) Aspiration hazard

No information.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

No information.

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
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics	EC ₅₀	> 1000 mg/L	48 h	<i>Daphnia</i>	/	/	/

Chronic (long-term) toxicity

No information.

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

No information.

12.3 Bioaccumulative potential

Partition coefficient

No information.

Bioconcentration factor (BCF)

No information.

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

No information.

12.5 Results of PBT and vPvB assessment

No evaluation.

12.6 Endocrine disrupting properties

No information.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Water hazard class 1 (self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

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

Waste codes / waste designations according to LoW

16 05 04* - gases in pressure containers (including halons) containing dangerous substances

Packaging

Deliver completely emptied containers to approved waste disposal authorities.

Waste codes / waste designations according to LoW

15 01 04 - metallic packaging

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
14.1 UN number or ID number			
UN 1950	UN 1950	UN 1950	UN 1950
14.2 UN proper shipping name			
AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS
14.3 Transport hazard class(es)			
2	2	2	2

			
14.4 Packing group			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			
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)	Limited quantities 1 L EmS F-D, S-U	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
14.7 Maritime transport in bulk according to IMO instruments			
	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 mixtures

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

not applicable

Regulation EC 648/2004 on detergents

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

Special instructions

No information.

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

2.2 Label elements 8.2 Exposure controls

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
EWC - European Waste Catalogue (replaced by LoW – see below)
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.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.



- ☑ Provided correct labelling of the product
- ☑ Compliance with the local legislation
- ☑ Provided correct classification of the product
- ☑ Provided adequate transport data

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The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.