

Shell Tellus S2 VX 46

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 11/07/2025 Revision date: 11/07/2025 Version: 1.0

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

1.1. Product identifier

Product form	Mixture
Product name	Shell Tellus S2 VX 46
Product code	BU ET&A

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

1.2.1. Relevant identified uses

Industrial/Professional use spec	For professional use only
Use of the substance/mixture	Hydraulic fluids and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Maagtechnic AG
Sonnentalstrasse 8
CH-8600 Dübendorf 1
Switzerland
T +41 44 824 91 91
lubeinfo@maagtechnic.com

Department issuing data specification sheet

Hilti AG
Feldkircherstraße 100
FL 9494 Schaan
Liechtenstein
T +423 234 2111
product.compliance-power.tools@hilti.com

1.4. Emergency telephone number

Emergency number	Emergency CONTACT (24-Hour-Number): GBK GmbH Global Regulatory Compliance +49 (0)6132-84463 +353 188 64101 1850-287 387 Call Save
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Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

EUH-statements	EUH208 - Contains triazole derivatives. May produce an allergic reaction. EUH210 - Safety data sheet available on request.
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2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
triazole derivatives (91273-04-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
triazole derivatives (91273-04-0)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
triazole derivatives	CAS-No.: 91273-04-0 EC-No.: 401-280-0 EC Index-No.: 613-072-00-9	< 0.1	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Chronic 1, H410

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest. If symptoms persist call a doctor.
First-aid measures after skin contact	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse.
First-aid measures after eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	Rinse mouth. Do NOT induce vomiting. Get medical advice/attention.

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

Symptoms/effects after skin contact	Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Necrosis. High pressure injection of product under the skin can have very serious consequences even without apparent symptoms or injuries.
Symptoms/effects after ingestion	Ingestion may cause nausea, vomiting and diarrhea.

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Chronic symptoms

Symptoms may be delayed.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam. Water spray. Dry powder. Carbon dioxide. Sand.

Unsuitable extinguishing media

Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard

No fire hazard.

Explosion hazard

No direct explosion hazard.

Reactivity in case of fire

Hazardous decomposition products in case of fire.

Hazardous decomposition products in case of fire

Carbon dioxide. Carbon monoxide. Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Do not allow run-off from fire-fighting to enter drains or water courses.

Firefighting instructions

Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. Do not enter fire area without proper protective equipment, including respiratory protection.

Protection during firefighting

Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Protective equipment

Wear recommended personal protective equipment.

Emergency procedures

Evacuate unnecessary personnel. Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment

Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures

Evacuate unnecessary personnel. Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment

Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Collect all waste in suitable and labelled containers and dispose according to local legislation.

Methods for cleaning up

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Other information

Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Section 8. Exposure controls and personal protection. For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

Ensure good ventilation of the work station. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not breathe vapours, spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures

Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

Keep in a cool, well-ventilated place away from heat. Proper grounding procedures to avoid static electricity should be followed.

Storage conditions

Keep cool. Protect from sunlight. Keep container closed when not in use. Keep only in original container.

Incompatible materials

PVC.

Packaging materials

Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	A specific exposure sampling method is not available.

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):



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8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Colour	clear.
Odour	characteristic.
Odour threshold	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	> 280 °C (estimated value)
Flammability	Not available
Lower explosion limit	1 vol % (typical)
Upper explosion limit	10 vol % (typical)
Flash point	220 °C ISO 2592
Auto-ignition temperature	> 320 °C
Decomposition temperature	Not available
pH	Not available
Viscosity, kinematic	46 mm ² /s ASTM D445 (40 °C)
Solubility	Water: Negligible
Partition coefficient n-octanol/water (Log Kow)	Not available
Partition coefficient n-octanol/water (Log Pow)	> 6 Data from similar product
Vapour pressure	< 0.5 hPa (estimated value)
Vapour pressure at 50°C	Not available
Density	856 kg/m ³ ISO 12185 (15 °C)
Relative density	0.856 (15 °C)
Relative vapour density at 20°C	Not available
Particle characteristics	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

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9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

triazole derivatives (91273-04-0)	
LD50 oral rat	2356 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))

Skin corrosion/irritation	Not classified
Additional information	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Not classified
Additional information	Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	Not classified
Additional information	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Not classified
Additional information	Based on available data, the classification criteria are not met
Carcinogenicity	Not classified
Additional information	Based on available data, the classification criteria are not met
Reproductive toxicity	Not classified
Additional information	Based on available data, the classification criteria are not met
STOT-single exposure	Not classified
Additional information	Based on available data, the classification criteria are not met
STOT-repeated exposure	Not classified
Additional information	Based on available data, the classification criteria are not met
Aspiration hazard	Not classified
Additional information	Based on available data, the classification criteria are not met

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Viscosity, kinematic	46 mm ² /s ASTM D445 (40 °C)

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

Potential adverse human health effects and symptoms

Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute)

Not classified

Hazardous to the aquatic environment, long-term (chronic)

Not classified

triazole derivatives (91273-04-0)	
LC50 - Fish [1]	1.1 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value)
EC50 - Crustacea [1]	2.2 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Read-across)
ErC50 algae	> 1 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Scenedesmus subspicatus, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

Shell Tellus S2 VX 46	
Persistence and degradability	No additional information available.
triazole derivatives (91273-04-0)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

Shell Tellus S2 VX 46	
Partition coefficient n-octanol/water (Log Pow)	> 6 Data from similar product
Bioaccumulative potential	Not established.
triazole derivatives (91273-04-0)	
BCF - Fish [1]	< 1 (24 h, Static system, Marine water, Experimental value)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

triazole derivatives (91273-04-0)	
Surface tension	58.1 mN/m (20 °C, Experimental value, 0.10 ml/10ml, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5.5 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)

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triazole derivatives (91273-04-0)	
Ecology - soil	Adsorbs into the soil.

12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation	Disposal must be done according to official regulations.
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations.
Additional information	Do not re-use empty containers.
Ecological waste information	Avoid release to the environment.
European List of Waste (LoW, EC 2000/532)	13 01 10* - mineral based non-chlorinated hydraulic oils

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated



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Air transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(b)	triazole derivatives
3(c)	triazole derivatives

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ACGIH	American Conference of Government Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

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Abbreviations and acronyms:	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment

