



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

1.1 Product identifier

Trade name : Dörr-Titanol® S

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

Product use : Pretreatment agent, Product is not intended for consumer use

1.3 Details of the supplier of the safety data sheet

Company name of supplier : Sika Schweiz AG
Tüffenwies 16
8048 Zürich
Telephone : +41 58 436 40 40
Telefax : -
E-mail address of person : EHS@ch.sika.com
responsible for the SDS

1.4 Emergency telephone number

Tox Info Suisse
CH-8028 Zurich
+41(0)44 251 51 51 / Speed calling: 145

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture




Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



Hazard pictograms	:	  
Signal word	:	Danger
Hazard statements	:	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H336 May cause drowsiness or dizziness. H412 Harmful to aquatic life with long lasting effects.
Supplemental Hazard Statements	:	EUH066 Repeated exposure may cause skin dryness or cracking.
Precautionary statements	:	Prevention: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing mist or vapours. P273 Avoid release to the environment. Response: P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P331 Do NOT induce vomiting. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.



SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not Assigned 927-241-2 01-2119471843-32-XXXX [corresponding group CAS 64742-48-9]	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system) Asp. Tox. 1; H304 Aquatic Chronic 3; H412 EUH066	>= 25 - < 40
Alkanes, C8-9-iso-	246538-71-6 932-020-9 01-2119548395-31-XXXX	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system) Asp. Tox. 1; H304 Aquatic Chronic 2; H411 EUH066	>= 10 - < 20
Substances with a workplace exposure limit :			
Asphalt	8052-42-4 232-490-9 01-2119480172-44-XXXX		>= 40 - < 60

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Do not induce vomiting without medical advice.



Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Aspiration may cause pulmonary oedema and pneumonitis.
Erythema
Loss of balance
Vertigo
See Section 11 for more detailed information on health effects and symptoms.

Risks : Risk of serious damage to the lungs (by aspiration).

May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness.
Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : Water
High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not use a solid water stream as it may scatter and spread fire.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Use water spray to cool unopened containers.



SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Use personal protective equipment.
Remove all sources of ignition.
Deny access to unprotected persons.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

- Environmental precautions : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

- For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharge.
Open drum carefully as content may be under pressure.
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).
Follow standard hygiene measures when handling chemical products
- Advice on protection against fire and explosion : Use explosion-proof equipment. Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking. Take precautionary measures against electrostatic discharges.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.



7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully re-sealed and kept upright to prevent leakage. Store in accordance with local regulations.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Consult most current local Product Data Sheet prior to any use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters *	Basis *
Asphalt	8052-42-4	TWA	5 mg/m3	CH SUVA
	Further information: Toxic by skin resorption possible; Substances, which are easily absorbed through the skin, can give by additional skin resorption a substantial higher risk compared to only inhalation by the airways., Carcinogenic Category 3, BIA			
		STEL	20 mg/m3	CH SUVA
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not Assigned	TWA	50 ppm 300 mg/m3	CH SUVA
Alkanes, C8-9-iso-	246538-71-6	STEL	600 ppm 2.800 mg/m3 (n-octane)	CH SUVA
	Further information: National Institute for Occupational Safety and Health			
		TWA	300 ppm 1.400 mg/m3 (n-octane)	CH SUVA

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	Workers	Skin contact		300 mg/m3 300 mg/kg
	Workers		Inhalation	1500 mg/m3
	Consumers	Skin contact		300 mg/m3 300 mg/kg
	Consumers	Inhalation		900 mg/m3
	Consumers	Ingestion		300 mg/m3 300 mg/kg



8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards.
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- Eye/face protection : Safety glasses with side-shields conforming to EN166
Eye wash bottle with pure water
- Hand protection : Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manufacturer specifications.
- Suitable for short time use or protection against splashes:
Butyl rubber/nitrile rubber gloves (> 0,1 mm)
Contaminated gloves should be removed.
Suitable for permanent exposure:
Viton gloves (0.4 mm),
breakthrough time >30 min.
- Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionally recommended for mixing and stirring work.
- Respiratory protection : In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
organic vapor filter (Type A)
A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm
Ensure adequate ventilation. This can be achieved by local exhaust extraction or by general ventilation. (EN 689 - Methods for determining inhalation exposure). This applies in particular to the mixing / stirring area. In case this is not sufficient to keep the concentrations under the occupational exposure limits then respiration protection measures must be used.

Environmental exposure controls

- General advice : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Physical state : liquid
Colour : black



Odour : solvent-like

Melting point/range / Freezing point : No data available

Boiling point/boiling range : > 150 °C

Flammability (solid, gas) : No data available

Upper/lower flammability or explosive limits

Upper explosion limit / Upper flammability limit : Upper explosion limit 6,4 %(V)

Lower explosion limit / Lower flammability limit : Lower explosion limit 0,67 %(V)

Flash point : ca. 27 °C
Method: closed cup

Auto-ignition temperature : 255 °C

Decomposition temperature : No data available

pH : Not applicable
substance/mixture is non-soluble (in water)

Viscosity

Viscosity, kinematic : < 20,5 mm²/s (40 °C)

Solubility(ies)

Water solubility : insoluble

Partition coefficient: n-octanol/water : No data available

Vapour pressure : No data available

Density : ca. 0,9 g/cm³ (20 °C)

Relative vapour density : No data available



Particle characteristics : No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

:
No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Acute toxicity

Not classified due to lack of data.

Components:

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 4.951 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg



Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.

Components:

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Assessment : Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Not classified due to lack of data.

Respiratory or skin sensitisation

Skin sensitisation

Not classified due to lack of data.

Respiratory sensitisation

Not classified due to lack of data.

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

Reproductive toxicity

Not classified due to lack of data.

STOT - single exposure

May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified due to lack of data.

Aspiration toxicity

May be fatal if swallowed and enters airways.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

No data available



12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The generation of waste should be avoided or minimized wherever possible.
Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.
Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Waste code Switzerland : 08 04 09 [S] waste adhesives and sealants containing organic



VeVA/LVA : solvents or other dangerous substances
Contaminated packaging : 15 01 10 [S] packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

14.1 UN number or ID number

ADR : UN 1139
IMDG : UN 1139
IATA : UN 1139

14.2 UN proper shipping name

ADR : COATING SOLUTION
IMDG : COATING SOLUTION
IATA : Coating solution

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADR	: 3	
IMDG	: 3	
IATA	: 3	

14.4 Packing group

ADR
Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3
Tunnel restriction code : (D/E)

IMDG
Packing group : III
Labels : 3
EmS Code : F-E, S-E

IATA (Cargo)
Packing instruction (cargo aircraft) : 366
Packing instruction (LQ) : Y344
Packing group : III
Labels : Flammable Liquids

IATA (Passenger)
Packing instruction (passenger aircraft) : 355
Packing instruction (LQ) : Y344



Packing group : III
Labels : Flammable Liquids

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

IATA (Passenger)

Environmentally hazardous : no

IATA (Cargo)

Environmentally hazardous : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

International Chemical Weapons Convention (CWC) : Not applicable
Schedules of Toxic Chemicals and Precursors

REACH Information: All substances contained in our Products are
- registered by our upstream suppliers, and/or
- registered by us, and/or
- excluded from the regulation, and/or
- exempted from the registration.

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:
Number on list 3

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : None of the components are listed
(=> 0.1 %).

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollu- : Not applicable



tants (recast)

PIC Ordinance, ChemPICO (814.82) : Not applicable

Chemical Risk Reduction Ordinance (ORRChem, SR 814.81) : See respective Annex to the Chemical Risk Reduction Ordinance (ORRChem, 814.81) for Conditions of Restriction.

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P5c FLAMMABLE LIQUIDS

Volatile organic compounds : Law on the incentive tax for volatile organic compounds (VOCV)

Volatile organic compounds (VOC) content: 38% w/w

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)

Volatile organic compounds (VOC) content: 50% w/w

15.2 Chemical safety assessment

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

SECTION 16: Other information

Full text of H-Statements

H226 : Flammable liquid and vapour.
H304 : May be fatal if swallowed and enters airways.
H336 : May cause drowsiness or dizziness.
H411 : Toxic to aquatic life with long lasting effects.
H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Aquatic Chronic : Long-term (chronic) aquatic hazard
Asp. Tox. : Aspiration hazard
Flam. Liq. : Flammable liquids
STOT SE : Specific target organ toxicity - single exposure
CH SUVA : Switzerland. Limit values at the work place
CH SUVA / TWA : Time Weighted Average
CH SUVA / STEL : Short Term Exposure Limit
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS : Chemical Abstracts Service
DNEL : Derived no-effect level
EC50 : Half maximal effective concentration
GHS : Globally Harmonized System
IATA : International Air Transport Association
IMDG : International Maritime Code for Dangerous Goods
LD50 : Median lethal dosis (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)



LC50	:	Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)
MARPOL	:	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
OEL	:	Occupational Exposure Limit
PBT	:	Persistent, bioaccumulative and toxic
PNEC	:	Predicted no effect concentration
REACH	:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency
SVHC	:	Substances of Very High Concern
vPvB	:	Very persistent and very bioaccumulative

Further information

Classification of the mixture:

Flam. Liq. 3	H226
STOT SE 3	H336
Asp. Tox. 1	H304
Aquatic Chronic 3	H412

Classification procedure:

Based on product data or assessment
Calculation method
Calculation method
Calculation method

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

||| Changes as compared to previous version !

CH / EN