

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

1.1 Product identifier

Product name

SPINEL

Synonyms

Spinel SP67, Spinel SP78, Spinel SP90 | The product names refer to additional codes representing different material grades: SPINEL SP67, SPINEL SP78, SPINEL SP90



<https://my.chemius.net/p/4MFdzl/en/pd/en>

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

Relevant identified uses

Raw material in the refractories, ceramics, glass and chemical industries, abrasives, polishing aids; use as an additive, filler, pigment

Uses advised against

Not known.

1.3 Details of the supplier of the safety data sheet

Manufacturer

SILKEM, d. o. o.
Tovarniška cesta 10
2325 Kidričevo, Slovenia
+386 2 7991 200
info@silkem.si

1.4 Emergency Telephone Number

Emergency

112

Manufacturer

+386 2 7991 208 (7h - 15h)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

According to the regulation, the chemical is not classified as hazardous.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]**Hazard statements:**

Not applicable.

Supplemental hazard information (EU):

Not applicable.

Precautionary statements:

Not applicable.

Special provisions

The product is not classified as dangerous according to regulations.

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

The substances in the product are not classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

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 Concentration Limits	Notes for substances
SPINEL	1302-67-6 215-105-9 - 01-2119457267-32-0008	>99	/	/	/

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

Person giving first aid should properly protect himself.

Following inhalation

Remove patient to fresh air - move out of dangerous area. If symptoms develop and persist, seek medical attention.

Following skin contact

Take off all 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

Rinse mouth thoroughly with water. In case of doubt or if feeling unwell seek medical help. Show the physician the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

No symptoms are expected.

Following skin contact

No irritant effects.

Following eye contact

No symptoms are expected.

Following ingestion

No symptoms are expected.

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

The product is not combustible. Use the usual extinguishing measures (carbon dioxide (CO₂), dry chemical, foam; water spray) Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

No information.

5.3 Advice for firefighters

Protective actions

No information.

Special protective equipment for fire-fighters

Select according to conditions and other factors.

Additional information

No information.

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

Ensure adequate ventilation.

Emergency procedures

No information.

For emergency responders

No information.

6.2 Environmental precautions

Prevent contamination of soil and ground water.

6.3 Methods and material for containment and cleaning up

For containment

No information.

For cleaning up

Collect the product and recycle it for reuse. Take up mechanically and collect in suitable container and dispose according to current regulations.

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.

Measures to prevent aerosol and dust generation

Prevent dust formation.

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. Do not eat, drink or smoke while working. Do not breathe dust.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep in a cool, dry and well ventilated place.

Packaging materials

No information.

Requirements for storage rooms and vessels

No information.

Storage temperature

No information.

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
SPINEL	5	/	/	/	OSHA/TWA, respiratoric dust	/
SPINEL	15	/	/	/	OSHA/TWA, total dust	/
SPINEL	4	/	/	/	WEL long-term, respirable	/
SPINEL	10	/	/	/	WEL long-term, inhalable	/

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.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration.

Personal protective equipment

Eye and face protection

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

Hand protection

Protective gloves (EN 374).

Appropriate materials

No information

Skin protection

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

Respiratory protection

Not needed under normal use and adequate ventilation. In case of insufficient ventilation wear suitable respiratory protection. Mask with dust filter (P2) or FFP2 (EN 149). Wear a mask with a filter for dust/aerosols - FFP3 (EN 149). 'High/elevated concentrations' means that the occupational exposure limit values have been exceeded.

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

Important health, safety and environmental information

Physical state	solid
Shape	No information.
Colour	amber
Odour	no odour
Odour threshold	No information.
Melting/freezing point	< 2135 °C
Boiling point or initial boiling point and boiling range	No information.
Flammability	No information.
Explosion limits (vol%)	No information.
Flash point	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	6 — 9.5
Viscosity	No information.
Solubility	No information.

Partition coefficient n-octanol/water (log value)	No information.
Vapour pressure	No information.
Relative density	3 — 3.4 g/cm ³
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

Solids content	900 — 1500 g/l
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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

There are no known hazardous reactions.

10.4 Conditions to avoid

No special precautions required. Consider the directions for use and storage.

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected.

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
SPINEL	dermal	LD ₅₀	rat	/	1000 - 3400 mg/kg	/	/

Name	Exposure route	Type	Species	Time	Value	Method	Remark
SPINEL	inhalation	LC ₅₀	rat	4 h	5.1 - 4000 mg/l	/	/

(b) Skin corrosion/irritation

No information.

(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.

(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**

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
SPINEL	LC ₅₀	35 - 54 mg/L	96 h	fish	/	/	/
SPINEL	EC ₅₀	3.6 - 299 mg/L	2 min	daphnia	/	/	/
SPINEL	LC ₅₀	0.352 - 10 mg/L	14 days	algae	/	/	/

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 n-octanol/water (log value)

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

The components in this product do not meet the criteria for classification as PBT or vPvB.

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 dangerous for environment.

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.

Waste codes / waste designations according to LoW

No information.

Packaging

Deliver completely emptied containers to approved waste disposal authorities.

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**14.1 UN number or ID number**

ADR/RID	IMDG	IATA	ADN
Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.

14.2 UN proper shipping name

ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable

14.3 Transport hazard class(es)

ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable

14.4 Packing group

ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable

14.5 Environmental hazards

ADR/RID	IMDG	IATA	ADN
NO	NO	NO	NO

14.6 Special precautions for user

ADR/RID	IMDG	IATA	ADN
Limited quantities: Not given/not applicable	Limited quantities: Not given/not applicable		Limited quantities: Not given/not applicable

14.7 Maritime transport in bulk according to IMO instruments

ADR/RID	IMDG	IATA	ADN
	Not given/not applicable		

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

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

No information.

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

3.1 Substances 3.2 Mixtures

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

No information.