

NANOPHOS SA	Revision No. 2
SurfaSil Kirei	Dated 06/08/2024
	Printed on 06/08/2024 Page
	n. 1/14
	Superseded revision:1 (Date: 01/08/2022)

Safety data sheet

In accordance with Annex II of REACH - Regulation (EU) 2020/878 and Annex II of UK REACH

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

1.1. Product identifier	
Code:	NanoPhos_01082022-001
Product name	SurfaSil Kirei
1.2. Relevant identified uses of the substance or mixture and uses advised against	
Intended use	not available
1.3. Details of the supplier of the safety data sheet	
Name and surname	NANOPHOS SA
Full address	Technological and Cultural Park
District and country	19 500 Lavrio (Greece)
	Greece
	Phone +30 22920 69312
	Fax +30 22920 69303
email address of the competent person	
responsible for the safety data sheet	iarabatz@NanoPhos.com
Supplier:	Ioannis Arabatzis
1.4. Emergency telephone number	
For urgent requests, contact	+30 210 7793777

SECTION 2. Hazard identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous in accordance with the provisions of Regulation (EC) No 1272/2008 (CLP). However, as the product contains hazardous substances in concentrations that must be declared in section 3, it requires a safety data sheet with appropriate information, in accordance with Regulation (EU) 2020/878.

Hazard classification and indication: --

2.2. Label elements

Hazard labeling in accordance with EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Warning words: --

Danger indications:

NANOPHOS SA	Revision No. 2
	Dated 06/08/2024
	Printed on 06/08/2024 Page n. 2/14
SurfaSil Kirei	Superseded revision:1 (Date: 01/08/2022)

EUH210	Safety data sheet available upon request.
EUH208	Contains: 2-methyl-2H-isothiazol-3-one May produce an allergic reaction.
Precautionary statements:	
P501	Dispose of contents or container in accordance with local/national/international regulations.
P102	Keep out of reach of children.
P101	If medical advice is needed, have the product container or label at hand.

2.3. Other hazards

Based on the available data, the product does not contain PBT or vPvB in a percentage greater than 0.1%. The product does not contain substances with endocrine disrupting properties in concentration greater than 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contain:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP) Acid
silica, potassium salt		
INDEX -	5 x< 10	Eye Irritation. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335
EC 215-199-1		
CAS 1312-76-1		
TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with an aerodynamic diameter of 10 μm] (nanoform)		
INDEX 022-006-00-2	0 < x< 1	Carc. 2 H351, Classification note according to Annex VI to CLP Adjustment: 10, V, W
EC 236-675-5		
CAS 13463-67-7		
REACH Reg. 01-2119849379-17001		
2,2,4-Trimethyl-1,3-Pentanediol diisobutyrate		
INDEX -	0 < x < 3	Rep. 2 H361d, Aquatic Chronic 3 H412 EC
229-934-9		
CAS 6846-50-0		
2-methyl-2H-isothiazol-3-one		
INDEX -	0 < x < 0.0015	Acute Tox. 2 H330, Acute Tox. 3 H301, Acute Tox. 3 H311, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1, EUH208
EC 220-239-6		EUH208: 0%, Skin Sensitization 1A H317: 0.0015%
CAS 2682-20-4		LD50 Oral: 183 mg/kg, LD50 Dermal: 242 mg/kg, LC50 Inhalation mist/powder: 0.11 mg/l/4h

NANOPHOS SA	Revision No. 2
SurfaSil Kirei	Dated 06/08/2024
	Printed on 06/08/2024 Page
	n. 3/14
	Superseded revision:1 (Date: 01/08/2022)

The full wording of the hazard (H) phrases is presented in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

No effects are expected that require the application of special first aid measures. The following information represents practical guidance on the correct behavior in case of contact with a chemical product, even if it is not dangerous.

If in doubt or if symptoms are present, contact a doctor and show him/her this document. In case of more severe symptoms, seek medical help immediately.

EYES: Remove contact lenses, if present and easy to do. Rinse immediately with plenty of water for at least 15 minutes, holding the eyelids wide open. Get medical advice/attention.

SKIN: Remove contaminated clothing. Wash immediately and thoroughly with running water (and soap, if possible). Get medical attention. Avoid further contact with contaminated clothing.

INGESTION: Do not induce vomiting unless directed to do so by a physician. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

INHALATION: Remove victim to fresh air, away from the scene of the accident. Obtain medical advice/attention. Protection_____

Rescuers_____

It is good practice for rescuers assisting a person who has been exposed to a chemical substance or mixture to wear personal protective equipment. The nature of this protection depends on the hazard level of the substance or mixture, the type of exposure and the degree of contamination. In the absence of more specific advice, the use of disposable gloves is recommended in the event of possible contact with body fluids. For the type of PPE appropriate to the characteristics of the substance or mixture, see Section 8.

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

No specific information is known regarding symptoms and effects caused by the product.

DELAYED EFFECTS: Based on currently available information, there are no known cases of delayed effects following exposure to this product.

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

If symptoms occur, acute or delayed, consult a doctor.

Means available at the workplace for specific and immediate treatment Running water

for washing skin and eyes.

SECTION 5. Firefighting measures

5.1. Extinguishing media

ADEQUATE FIRE EXTINGUISHING EQUIPMENT

Extinguishing equipment should be of the conventional type: carbon dioxide, foam, powder and water spray. INADEQUATE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

NANOPHOS SA	Revision No. 2
	Dated 06/08/2024
SurfaSil Kirei	Printed on 06/08/2024 Page
	n. 4/14
	Superseded revision:1 (Date: 01/08/2022)

GENERAL INFORMATION

Use water jets to cool containers to prevent product decomposition and the release of substances potentially hazardous to health. Always wear full fire-fighting equipment. Collect extinguishing water to prevent it from flowing into the sewage system. Dispose of contaminated used water for extinguishing and fire debris in accordance with applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Normal firefighting clothing, namely firefighter's kit (BS EN 469), gloves (BS EN 659) and boots (HO specifications A29 and A30) in combination with a positive pressure, open circuit, self-contained breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the drain if there is no danger.

Wear appropriate protective equipment (including personal protective equipment as specified in section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. This applies to both processing personnel and those involved in emergency procedures.

6.2. Environmental precautions

The product must not enter the sewage system or come into contact with surface or underground water.

6.3. Methods and materials for containment and cleaning up

Collect spilled product in a suitable container. Assess the compatibility of the container to be used by checking section 10. Absorb the remainder with inert absorbent material.

Ensure that the spill area is well ventilated. Contaminated material should be disposed of in accordance with the provisions of section 13.

6.4. Reference to other sections

Any information on personal protection and disposal is provided in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all other sections of this Material Safety Data Sheet. Avoid release to the environment. Do not eat, drink or smoke during use. Remove any contaminated clothing and personal protective equipment before entering areas where people eat.

7.2. Conditions for safe storage, including any incompatibilities

Keep only in the original container. Store containers tightly closed in a well-ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information is not available.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

NANOPHOS SA						Revision No. 2 Dated 06/08/2024	
SurfaSil Kirei						Printed on 06/08/2024 Page n. 5/14 Superseded revision:1 (Date: 01/08/2022)	
		<div><div>brothers</div><div>France</div><div>Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 December 2021</div></div> <div><div>GRC</div><div>Greece</div><div>γ.γ. 26/2020 (γγγ 50/γ` 6.3.2020) Harmonization of Greek legislation to the provisions of the directives 2017/2398/Eγ, 2019/130/γγ and 2019/983/γγ "for the amendment of Directive 2004/37/EC ``related the protection of workers from the risks associated with exposure to carcinogens or γγγγγγγγγγγγγ factors against work</div></div> <div><div>red</div><div>Romania</div><div>Decision No. 53/2021 amending Government Decision No. 1,218/2006, as well as and for the modification and supplementing government decision no. 1,093/2006</div></div> <div><div>GBR</div><div>United Kingdom TLV-ACGIH</div><div>EH40/2005 Occupational Exposure Limits (Fourth Edition 2020) ACGIH 2023</div></div>					
10 μm]							
Threshold limit value							
Type Country	TWA/8h	STEL/15min		Remarks /			
				Observations			
	mg/m3	ppm	mg/m3	ppm			
VLEP	brothers	10					
TLV	GRC		10				
TLV	red	10		15			
WEL	GBR	10			inhaler		
WEL	GBR	4			Respite		
TLV-ACGIH		0.2			Respite		
2,2,4-Trimethyl-1,3-Pentanediol diisobutyrate							
Predicted No Effect Concentration - PNEC							
Normal value in fresh water			0.014	mg/l			
Normal value in seawater			0.0014	mg/l			
Normal value for freshwater sediments			5.29	mg/kg			
Normal value for marine water sediments			0.529	mg/kg			
Normal value for water, intermittent release			0.14	mg/l			
Normal value of STP microorganisms			3	mg/l			
Normal value for the food chain (secondary poisoning)			83.3	mg/kg			
Normal value for the terrestrial compartment			1.05	mg/kg			
Legend:							
(C)= CEILING; INHAL= Inhalable fraction; RESP= Respirable fraction; THORA= Thoracic fraction.							
VND = hazard identified, but no DNEL/PNEC available; NEA = no expected exposure; NPI = no hazard identified; LOW = low hazard; MED = medium hazard; HIGH = high hazard.							
8.2. Exposure control							
Since the use of appropriate technical equipment must always take priority over personal protective equipment, ensure that the workplace is well ventilated through effective local exhaust ventilation.							
HAND PROTECTION							
Protect your hands with category III work gloves.							

NANOPHOS SA	Revision No. 2
	Dated 06/08/2024
SurfaSil Kirei	Printed on 06/08/2024 Page
	No. 6/14
Superseded revision:1 (Date: 01/08/2022)	

When choosing the material for work gloves (see standard EN 374) the following must be taken into account: compatibility, degradation, permeation time.
The resistance of work gloves to chemical agents should be checked before use, as it can be unpredictable. The wear time of the gloves depends on the duration and type of use.

SKIN PROTECTION

Wear professional long-sleeved category I overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash your body with soap and water after removing protective clothing.

EYE PROTECTION

Wear tight-fitting safety goggles (see standard EN ISO 16321).

RESPIRATORY PROTECTION

Respiratory protective devices must be used if the technical measures adopted are not adequate to limit the worker's exposure to the limit values.
considered. Use a type B filter mask whose class (1, 2 or 3) must be chosen according to the limit concentration of use. (see standard EN 14387).
If the substance in question is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in case of emergency, wear an open-circuit compressed air breathing apparatus (in accordance with standard EN 137) or an external suction breathing apparatus (in accordance with standard EN 138).
For correct choice of respiratory protective device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROL

Emissions generated by manufacturing processes, including those generated by ventilation equipment, must be verified to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

property	Liquid value	Information
appearance		
Color	white	
Odoare	not available	
Melting point/freezing point	not available	
Initial boiling point	not available	
FLASH	is not available	
Lower explosive limit	is not available	
Upper explosion limit	is not available	
Flash point	> 60 °C	
Autoignition temperature	is not available	
Decomposition temperature	is not available	
pH	11.4	
Kinematic viscosity	is not available	
Solubility	is not available	
Partition coefficient: n-octanol/water	it is not	
available Vapor pressure	it is not	
disposable		
Density and/or relative density	143 g/cm3	
Relative vapor density	is not available	
Particle characteristics	does not apply	

9.2. Other information

NANOPHOS SA	Revision No. 2
	Dated 06/08/2024
SurfaSil Kirei	Printed on 06/08/2024 Page
	No. 7/14
	Superseded revision:1 (Date: 01/08/2022)

9.2.1. Information on physical hazard classes

Information is not available.

9.2.2. Other safety features

Information is not available.

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no special risks of reaction with other substances under normal conditions of use.

10.2. Chemical stability

The product is stable under normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are expected under normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However, the usual precautions used for chemical products should be observed.

10.5. Incompatible materials

Information is not available.

10.6. Hazardous decomposition products

Information is not available.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are assessed based on the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to consider the individual hazardous substances indicated in section 3, in order to assess the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information Information not available

Information on likely routes of exposure

Information not available

NANOPHOS SA		Revision No. 2
		Dated 06/08/2024
SurfaSil Kirei		Printed on 06/08/2024 Page
		No. 8/14
		Superseded revision:1 (Date: 01/08/2022)
Delayed and immediate effects as well as chronic effects from short and long-term exposure Information		
unavailable		
Interactive effects		
Information unavailable		
ACUTE TOXICITY		
ATE (Inhalation) of the mixture:		Not classified (no significant component)
ATE (oral) of the mixture:		Not classified (no significant components)
ATE (Dermal) of the mixture:		Not classified (no significant component)
Silicic acid, potassium salt		
LD50 (Dermal):		> 5000 mg/kg Rat - male and female
LD50 (oral):		> 5000 mg/kg Rat-female
LC50 (inhalation vapor):		> 2.06 mg/l/4h Rat - male and female
TITANIUM DIOXIDE [in powder form containing 1% or more of particles with an aerodynamic diameter of 10 µm]		
LD50 (oral):		> 10000 mg/kg Rat
2,2,4-Trimethyl-1,3-Pentanediol diisobutyrate		
LD50 (Dermal):		> 2000 mg/kg Rabbit
LD50 (oral):		> 2000 mg/kg Rat
LC50 (inhalation vapor):		> 0.12 mg/l/6h Rat
2-methyl-2H-isothiazol-3-one		
LD50 (Dermal):		242 mg/kg Rat
LD50 (oral):		183 mg/kg Rat
LC50 (Inhalation mist/powder):		0.11 mg/l/4h
Rat SKIN CORROSION/IRRITATION		
Does not meet the classification criteria for this hazard class		
SERIOUS EYE DAMAGE/IRRITATION		
Does not meet the classification criteria for this hazard class		
RESPIRATORY OR SKIN SENSITIZATION		
May cause an allergic reaction. Contains: 2-methyl-2H-isothiazol-3-one		
MUTAGENICITY OF CELLS		
GERM		
Does not meet the classification criteria for this hazard class		
carcinogen		
Does not meet the classification criteria for this hazard class		
TITANIUM DIOXIDE [in powder form containing 1 % or more of particles with an aerodynamic diameter of 10 µm]		
The classification as an inhalation carcinogen only applies to powdered mixtures containing 1% or more of titanium dioxide as or incorporated into particles with an aerodynamic diameter of 10 µm.		

NANOPHOS SA	Revision No. 2
	Dated 06/08/2024
SurfaSil Kirei	Printed on 06/08/2024 Page
	n. 9/14
	Superseded revision:1 (Date: 01/08/2022)

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with effects on human health under evaluation.

SECTION 12. Ecological information

Use this product in accordance with good working practices. Avoid littering. Inform the authorities if the product reaches water courses or contaminates soil or vegetation.

12.1. Toxicity

Silicic acid, potassium salt		
LC50 - for fish		> 146 mg/l/48h Leuciscus idus (Golden Orpheus)
2-methyl-2H-isothiazol-3-one		
LC50 - for fish		6 mg/l/96h
EC50 - for crustaceans		1.9 mg/l/48h
EC50 - for algae / aquatic plants		0.158 mg/l/72h
2,2,4-Trimethyl-1,3-Pentanediol diisobutyrate		
EC50 - for algae / aquatic plants		> 1.3 mg/l
Chronic NOEC for fish		> 6 mg/l (96 h)
Chronic NOEC for algae/aquatic plants		> 7.49 mg/l (76 h)

12.2. Persistence and degradability

TITANIUM DIOXIDE [in powder form containing 1% or more of particles with an aerodynamic diameter of 10 µm]	
Solubility in water	< 0.001 mg/l
Degradability: information not available	

12.3. Bioaccumulative potential

2,2,4-Trimethyl-1,3-Pentanediol diisobutyrate

NANOPHOS SA	Revision No. 2
	Dated 06/08/2024
SurfaSil Kirei	Printed on 06/08/2024 Page
	n. 10/14
	Superseded revision:1 (Date: 01/08/2022)

BCF 1.95 FISH

12.4. Mobility in soil

Information is not available.

12.5. Results of PBT and vPvB assessment

Based on available data, the product does not contain PBT or vPvB in percentages greater than 0.1%.

12.6. Endocrine Disrupting Properties

Based on available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information is not available.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Clean product residues should be considered non-hazardous special waste.
Disposal must be carried out through a licensed waste management company, in accordance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in accordance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous according to the current provisions of the International Road Transport Code (ADR) and Rail Transport Code (RID), the International Maritime Dangerous Goods Code (IMDG) and the regulations of the International Air Transport Association (IATA).

14.1. UN number or identification number

does not apply

14.2. UN proper shipping name

does not apply

14.3. Transport hazard class(es)

NANOPHOS SA	Revision No. 2
SurfaSil Kirei	Dated 06/08/2024
	Printed on 06/08/2024 Page
	n. 11/14
	Superseded revision:1 (Date: 01/08/2022)

does not apply

14.4. Packing group

does not apply

14.5. Environmental risks

does not apply

14.6. Special precautions for the user

does not apply

14.7. Bulk maritime transport in accordance with IMO instruments

Information that is not relevant

SECTION 15. Regulatory Information

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or the substances contained in accordance with Annex XVII to Regulation (EC) No 1907/2006

The substance contained

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of drug precursors

explosives do not apply

Substances on the Candidate List (Article 59 REACH)

Based on the available data, the product does not contain any SVHC in percentages higher than 0.1%. Substances subject to authorization

(REACH Annex XIV)

None

NANOPHOS SA	Revision No. 2
	Dated 06/08/2024
SurfaSil Kirei	Printed on 06/08/2024 Page
	No. 12/14
	Superseded revision:1 (Date: 01/08/2022)

Substances subject to export reporting under Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Controls in the field

Health Information is not

available

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out for the preparation/substances indicated in section 3.

SECTION 16. Other information

Text of the hazard statements (H) mentioned in section 2-3 of the sheet:

Charge 2	Carcinogenicity, category 2
Rep. 2	Reproductive toxicity, category 2
Acute tox. 2	Acute toxicity, category 2
Acute toxicity. 3	Acute toxicity, category 3
Leather Corr. 1B	Skin corrosion, category 1B
Eye Irrit. 2	Eye irritation, category 2
Irritating to skin. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin sensitization 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1 Aquatic
Chronicle 1	Hazardous to the aquatic environment, chronic toxicity, category 1 Aquatic
Chronicle 3	Hazardous to the aquatic environment, chronic toxicity, category 3 H351
	Suspected of causing cancer.
H361d	Suspected of harming the unborn child.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	It may cause an allergic skin reaction.
H400	Very toxic to aquatic life.

NANOPHOS SA		Revision No. 2
		Dated 06/08/2024
SurfaSil Kirei		Printed on 06/08/2024 Page
		No. 13/14
		Superseded revision:1 (Date: 01/08/2022)
H410	Very toxic to aquatic life with long lasting effects.	
H412	Harmful to aquatic life with long lasting effects.	
EUH208	Contains <name of sensitising substance>. May produce an allergic reaction.	
EUH210	Safety data sheet available upon request.	
LEGEND:		
- ADR: European Agreement concerning the carriage of Dangerous goods by Road		
- ATE: Acute Toxicity Estimate - CAS:		
Chemical Abstracts Service Number - EC50: Effective		
Concentration (necessary to induce a 50% effect)		
- CE: Identifier in ESIS (European Archive of Existing Substances)		
- CLP: Regulation (EC) 1272/2008 - DNEL:		
Derived No Effect Level - EmS:		
Emergency Schedule - GHS:		
Globally Harmonized System of Classification and Labelling of Chemicals - IATA DGR: International Air		
Transport Association Dangerous Goods Regulations - IC50: 50% Immobilisation Concentration - IMDG: International Maritime		
Dangerous Goods Code - IMO: International		
Maritime Organization - INDEX: Identifier in Annex VI to CLP - LC50: Lethal		
Concentration 50% - LD50: Lethal Dose 50% - OEL:		
Occupational Exposure Level - PBT: Persistent,		
Bioaccumulative and Toxic - PEC:		
Predicted Environmental		
Concentration - PEL: Predicted Exposure Level -		
PMT: Persistent, Mobile and Toxic - PNEC:		
Predicted No Effect Concentration - REACH: Regulation		
(EC) 1907/2006 - RID: Regulation concerning		
the International Carriage of Dangerous		
Goods by Rail - TLV: Threshold Limit Value - TLV		
CEILING: Concentration that should not be exceeded		
during occupational exposure.		
- TWA: Time-weighted average exposure limit - TWA		
STEL: Short-term exposure limit - VOC: Volatile		
organic compounds - vPvB: Very		
persistent and very bioaccumulative - vPvM: Very		
persistent and very mobile - WGK: Water		
hazard classes (German).		
GENERAL BIBLIOGRAPHY		
1. Regulation (EC) No 1907/2006 (REACH) of the European Parliament		
2. Regulation (EC) No 1272/2008 (CLP) of the European Parliament 3.		
Regulation (EU) 2020/878 (Annex II to the REACH Regulation)		
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament 5.		
Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament 6.		
Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament 7.		
Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament 8.		
Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament 9.		
Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament 10.		
Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament 11.		
Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament 12.		
Regulation (EU) 2016/1179 (IX Atp. CLP)		
13. Regulation (EU) 2017/776 (X Atp. CLP)		
14. Regulation (EU) 2018/669 (XI Atp. CLP)		
15. Regulation (EU) 2019/521 (XII Atp. CLP)		
16. Delegated Regulation (EU) 2018/1480 (XIII Atp. CLP)		
17. Regulation (EU) 2019/1148 18.		
Delegated Regulation (EU) 2020/217 (XIV Atp. CLP)		
19. Delegated Regulation (EU) 2020/1182 (XV Atp. CLP)		
20. Delegated Regulation (EU) 2021/643 (XVI Atp. CLP)		
21. Delegated Regulation (EU) 2021/849 (XVII Atp. CLP)		
22. Delegated Regulation (EU) 2022/692 (XVIII Atp. CLP)		
23. Delegated Regulation (EU) 2023/707		

NANOPHOS SA	Revision No. 2
	Dated 06/08/2024
SurfaSil Kirei	Printed on 06/08/2024 Page
	No. 14/14
	Superseded revision:1 (Date: 01/08/2022)

- 24. Delegated Regulation (EU) 2023/1434 (XIX Atp. CLP)
- 24. Delegated Regulation (EU) 2023/1435 (XX Atp. CLP)
- Merck Index. - 10th Edition
- Chemical safety handling
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- NI Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS templates for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note to users:

The information contained in this sheet is based on our own knowledge at the date of the last version. Users must verify the suitability and completeness of the information provided for each specific use of the product.

This document cannot be considered a guarantee for any specific property of the product.

The use of this product is not under our direct control; therefore, users must, at their own risk, comply with applicable health and safety laws and regulations. The manufacturer is exempt from any liability resulting from improper use.

Provide designated personnel with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: The classification of the product is derived from the criteria set out in the CLP Regulation, Annex I, Part 2. Data for the evaluation of physicochemical properties are reported in section 9.

Health hazards: The classification of the product is based on the calculation methods set out in Annex I to CLP, Part 3, unless otherwise stated in section 11. Environmental hazards: The classification of the product is based on the calculation methods set out in Annex I to CLP, Part 4, unless otherwise stated in section 12.

Changes since the previous revision:

The following sections have been modified: 03 / 04 / 08 / 09 / 11 / 12 / 16.