

Safety Data Sheet

according to UK REACH Regulation

Sunovi-B4

Revision date: 06.01.2022

Product code: 991121

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

1.1. Product identifier

Sunovi-B4

Further trade names

INCI: Benzophenone-4

Substance name: Sulisobenzone
 REACH Registration Number: 01-2119958758-15-XXXX
 CAS No: 4065-45-6
 EC No: 223-772-2

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

Use of the substance/mixture

Manufacture of cosmetics

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: Satcotek GmbH
 Street: Gotenstrasse 13
 Place: D-20097 Hamburg
 Telephone: +49(0)40-5303669711
 Internet: www.satcotek.com
 Responsible Department: info@satcotek.com
 Telefax: +49(0)40-5303669766

1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Hazard categories:
 Skin corrosion/irritation: Skin Irrit. 2
 Serious eye damage/eye irritation: Eye Irrit. 2
 Respiratory or skin sensitisation: Skin Sens. 1
 Hazard Statements:
 Causes skin irritation.
 Causes serious eye irritation.
 May cause an allergic skin reaction.

2.2. Label elements

GB CLP Regulation

Signal word: Warning

Pictograms:



Hazard statements

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.

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Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

INCI: Benzophenone-4

Sum formula: C₁₄H₁₂O₆S

Molecular weight: 308,31

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
4065-45-6	Sulisobenzone			99 - <= 100 %
	223-772-2		01-2119958758-15-XXXX	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1; H315 H319 H317			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
4065-45-6	223-772-2	Sulisobenzone	99 - <= 100 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = 3530 mg/kg		

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

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After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂). Dry extinguishing powder. alcohol resistant foam. Water fog.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide (CO). Sulphur dioxide (SO₂). Gas/vapours, harmful.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Avoid dust formation.
Do not breathe dust.

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

No special measures are necessary.

6.2. Environmental precautions

Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

For containment

Take up mechanically.
Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Safe handling: see section 7
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Wear personal protection equipment (refer to section 8).

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Advice on protection against fire and explosion

Usual measures for fire prevention. Dust clouds may present an explosion hazard.

Advice on general occupational hygiene

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and after work.

Further information on handling

Avoid generation of dust.

General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Suitable material for Container: HDPE, LDPE

Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 20°C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

Once the containers are opened, the remains should be consumed within 24 hours.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
4065-45-6	Sulisobenzone			
Worker DNEL, long-term		inhalation	systemic	61,7 mg/m ³
Worker DNEL, long-term		dermal	systemic	583000 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	10,9 mg/m ³
Consumer DNEL, long-term		dermal	systemic	208000 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	6,25 mg/kg bw/day

PNEC values

CAS No	Substance	Value
4065-45-6	Sulisobenzone	
Environmental compartment		
Freshwater (intermittent releases)		0,5 mg/l
Marine water (intermittent releases)		0,05 mg/l
Freshwater sediment		0,449 mg/kg
Marine sediment		0,0449 mg/kg
Secondary poisoning		1,003 mg/l
Soil		0,0322 mg/kg

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Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Dust should be exhausted directly at the point of origin.

Individual protection measures, such as personal protective equipment

Eye/face protection

Dust protection goggles.

Hand protection

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time \geq 8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time \geq 8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time \geq 8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time \geq 8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time \geq 8 h

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.

Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Suitable protective clothing: Lab apron.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-Exceeding exposure limit values

-Generation/formation of dust

Suitable respiratory protective equipment: particulates filter device (DIN EN 143). Type: P1-3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Thermal hazards

Material handled at elevated temperature may cause thermal burns by contact with molten product.

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	off-white - pale yellow
Odour:	characteristic

Changes in the physical state

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Melting point/freezing point:	140 °C
Boiling point or initial boiling point and boiling range:	not determined
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Flash point:	not determined

Explosive properties

Dust clouds may present an explosion hazard.

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Auto-ignition temperature:	not determined

Self-ignition temperature

Solid:	not determined
Decomposition temperature:	not determined
pH-Value:	2 - 2,2
Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined
Flow time:	not determined
Water solubility:	miscible

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	0,37 (25 °C)
Vapour pressure:	not determined
Density (at 25 °C):	0,9 g/cm ³
Bulk density:	not determined
Relative vapour density:	not determined

9.2. Other information

Information with regard to physical hazard classes

Sustaining combustion:	Not sustaining combustion
Oxidizing properties	
none	

Other safety characteristics

Solvent separation test:	not determined
Solvent content:	not determined
Solid content:	not determined
Evaporation rate:	not determined

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

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10.3. Possibility of hazardous reactions

Reacts with : Peroxides. Strong alkali. Oxidizing agents.

10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong. Alkalis (alkalis). Peroxides.
Protect from atmospheric moisture and water

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.
Can be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide (CO). Sulphur dioxide (SO₂).
Gas/vapours, harmful.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicokinetics, metabolism and distribution

No data available.

Acute toxicity

Based on available data, the classification criteria are not met.
LD50 (Rat, oral) > 6400 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
4065-45-6	Sulisobenzone				
	oral	LD50 3530 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 > 5000 mg/kg	Albino rabbit	ECHA Dossier	

Irritation and corrosivity

Causes skin irritation.
Causes serious eye irritation.
The product has not been tested.

Sensitising effects

May cause an allergic skin reaction. (Sulisobenzone)
The product has not been tested.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.
No data available

STOT-single exposure

Based on available data, the classification criteria are not met.
No data available .

STOT-repeated exposure

Based on available data, the classification criteria are not met.
No data available .

Aspiration hazard

Based on available data, the classification criteria are not met.
No data available .

Specific effects in experiment on an animal

No data available.

11.2. Information on other hazards

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Endocrine disrupting properties

No data available.

SECTION 12: Ecological information

12.1. Toxicity

 Acute fish toxicity: LC50 (96h) > 220 - < 460 mg/l, *Leuciscus idus* (DIN 38412)

Toxicity to microorganisms/Activated sludge:

 EC10 (16h) 210 mg/l, *Pseudomonas putida* (DIN 38412)

EC20 (30 min) > 1,000 mg/l, activated sludge (DIN EN ISO 8192-OECD 209-88/302/EEC,P.C, aerobic)

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
4065-45-6	Sulisobenzone					
	Acute fish toxicity	LC50	215 mg/l	96 h	<i>Leuciscus idus</i>	ECHA Dossier
	Acute algae toxicity	ErC50	109,55 mg/l	72 h	<i>Chlorella vulgaris</i>	ECHA Dossier
	Acute crustacea toxicity	EC50	50 mg/l	48 h	<i>Daphnia magna</i>	ECHA Dossier
	Fish toxicity	NOEC	4897 mg/l	14 d	<i>Pimephales promelas</i>	ECHA Dossier
	Crustacea toxicity	NOEC	5 mg/l	21 d	<i>Daphnia magna</i>	ECHA Dossier
	Acute bacteria toxicity	(301 mg/l)			<i>Vibrio fisheri</i>	ECHA Dossier

12.2. Persistence and degradability

Not readily biodegradable (according to OECD criteria)

0 - 10 % DOC reduction (28 d) (OECD 301E/92/69/EEC, C.4-B) (aerobic, activated sludge)

70 - 80 % DOC reduction (35 d) (OECD Guideline 302 B) (aerobic, activated sludge, adapted)

12.3. Bioaccumulative potential

Bioaccumulation is not expected.

BCF

CAS No	Chemical name	BCF	Species	Source
4065-45-6	Sulisobenzone	3		ECHA

12.4. Mobility in soil

From the water surface the substance is not evaporated into the atmosphere.

Adsorption to solid soil phase is not expected.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

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According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

List of Wastes Code - used product

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Refer to section 6-8

14.7. Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information

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

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EU regulatory information

2010/75/EU (VOC):	No information available.
2004/42/EC (VOC):	No information available.
Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

Additional information

Safety Data Sheet according to UK-REACH Regulation
 This substance is hazardous in the sense of GHS (UK CLP).
 REACH 1907/2006 Appendix XVII, No.: -

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	1 - slightly hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

Rev. 1.0; Initial release: 06.01.2022

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 CAS: Chemical Abstracts Service
 CLP: Classification, Labelling and Packaging of substances and mixtures
 DNEL: Derived No Effect Level
 d: day(s)
 EINECS: European INventory of Existing Commercial chemical Substances
 ELINCS: European List of Notified Chemical Substances
 ECHA: European Chemicals Agency
 EWC: European Waste Catalogue
 IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
 h: hour
 LOAEL: Lowest observed adverse effect level
 LOAEC: Lowest observed adverse effect concentration
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 NOAEL: No observed adverse effect level
 NOAEC: No observed adverse effect concentration
 NLP: No-Longer Polymers
 N/A: not applicable
 OECD: Organisation for Economic Co-operation and Development
 PNEC: predicted no effect concentration
 PBT: Persistent bioaccumulative toxic
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail

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REACH: Registration, Evaluation, Authorisation of Chemicals

SVHC: substance of very high concern

TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations

VOC: Volatile Organic Compounds

Relevant H and EUH statements (number and full text)

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.