

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Siliciumreagenz 3

Revision date: 06.09.2022

Product code: 27874

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

### 1.1. Product identifier

Siliciumreagenz 3

UFI: 046G-723C-S00D-5QEH

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

#### Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

#### Uses advised against

Do not use for private purposes (household).

### 1.3. Details of the supplier of the safety data sheet

Company name:	Fa. Bernd Kraft GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
e-mail:	info@berndkraft.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
e-mail:	produktsicherheit@berndkraft.de	
Internet:	www.berndkraft.de	
Responsible Department:	Abteilung Produktsicherheit	

### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

### Further Information

This product is a mixture. REACH Registration Number see section 3.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No 1272/2008

Eye Dam. 1; H318

Skin Sens. 1; H317

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### Regulation (EC) No 1272/2008

#### Hazard components for labelling

disodium disulphite

bis(4-hydroxy-N-methylanilinium) sulphate

Signal word: Danger

#### Pictograms:



#### Hazard statements

H317

May cause an allergic skin reaction.

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H318 Causes serious eye damage.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves and eye/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

**Special labelling of certain mixtures**

EUH031 Contact with acids liberates toxic gas.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Chemical characterization**

Mixtures in aqueous solution

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7681-57-4	disodium disulphite			5 - < 10 %
	231-673-0	016-063-00-2	01-2119531326-45	
	Acute Tox. 4, Eye Dam. 1; H302 H318 EUH031			
55-55-0	bis(4-hydroxy-N-methylanilinium) sulphate			1 - < 5 %
	200-237-1	650-031-00-4		
	Acute Tox. 4, Skin Sens. 1, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H302 H317 H373 H400 H410			

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		
7681-57-4	231-673-0	disodium disulphite	5 - < 10 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 1420 mg/kg		
55-55-0	200-237-1	bis(4-hydroxy-N-methylanilinium) sulphate	1 - < 5 %
	dermal: LD50 = > 1000 mg/kg; oral: LD50 = 565 mg/kg		

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

No data available

**After inhalation**

Provide fresh air.

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Call a physician immediately.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Irritant

Allergic reactions

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

No data available

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

no restriction

**5.2. Special hazards arising from the substance or mixture**

Non-combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Sulphur oxides

**5.3. Advice for firefighters**

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

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

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**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

**For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Use personal protection equipment.

Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

Do not breathe vapour/aerosol. Use extractor hood (laboratory).

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

**Further information on handling**

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

Take off immediately all contaminated clothing and wash it before reuse.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep container tightly closed.

**Further information on storage conditions**

Store in a dry place.

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

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**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
7681-57-4	Sodium metabisulphite	-	5		TWA (8 h)	

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
7681-57-4	disodium disulphite			
Worker DNEL, long-term		inhalation	systemic	225 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	systemic	66 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral	systemic	8,6 mg/kg bw/day

**PNEC values**

CAS No	Substance	Value
7681-57-4	disodium disulphite	
Freshwater		1 mg/l
Marine water		0,1 mg/l
Micro-organisms in sewage treatment plants (STP)		75,4 mg/l

**8.2. Exposure controls**

**Appropriate engineering controls**

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

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles  
Wear eye/face protection.

**Hand protection**

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Recommended glove articles: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with permanent contact: > 480 min

By short-term hand contact

Recommended glove articles: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11mm  
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>, <)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing. Take off immediately all contaminated clothing.

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Wash hands before breaks and after work.

**Respiratory protection**

Respiratory protection necessary at: aerosol or mist formation

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid	
Colour:	light yellow	
Odour:	characteristic	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability		
Solid/liquid:		No data available
Gas:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		3,9
Viscosity / kinematic:		No data available
Water solubility:		completely miscible
Solubility in other solvents		
No data available		
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density:		No data available
Bulk density:		No data available
Relative vapour density:		No data available

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties	
No data available	
Sustaining combustion:	No data available
Self-ignition temperature	
Solid:	No data available
Gas:	No data available
Oxidizing properties	
Oxidizing	

**Other safety characteristics**

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	0
Solid content:	0
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available

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No data available:

Viscosity / dynamic:

No data available

Flow time:

No data available

**Further Information**

No data available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data available

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No data available

**10.4. Conditions to avoid**

No data available

**10.5. Incompatible materials**

No data available

**10.6. Hazardous decomposition products**

In case of fire may be liberated:

SECTION 5: Firefighting measures

**Further information**

No data available

**SECTION 11: Toxicological information**

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

**Toxicokinetics, metabolism and distribution**

There are no data available on the preparation/mixture itself.

**Acute toxicity**

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7681-57-4	disodium disulphite				
	oral	LD50 1420 mg/kg	Rat	Study report (1987)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2009)	OECD Guideline 402
55-55-0	bis(4-hydroxy-N-methylanilinium) sulphate				
	oral	LD50 565 mg/kg	Mouse	ChemIDplusA TOXNET Database, 2017 (2017)	other: As mentioned below
	dermal	LD50 > 1000 mg/kg	Guinea pig	ChemIDplusA TOXNET Database, 2017 (2017)	other: As mentioned below

**Irritation and corrosivity**

Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

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#### **Sensitising effects**

May cause an allergic skin reaction. (bis(4-hydroxy-N-methylanilinium) sulphate)

#### **Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

#### **STOT-single exposure**

Based on available data, the classification criteria are not met.

#### **STOT-repeated exposure**

Based on available data, the classification criteria are not met.

#### **Aspiration hazard**

Based on available data, the classification criteria are not met.

#### **Specific effects in experiment on an animal**

There are no data available on the preparation/mixture itself.

#### **Additional information on tests**

There are no data available on the preparation/mixture itself.

#### **Practical experience**

There are no data available on the preparation/mixture itself.

### **11.2. Information on other hazards**

#### **Other information**

There are no data available on the preparation/mixture itself.

#### **Further information**

There are no data available on the preparation/mixture itself.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

There are no data available on the mixture itself.



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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7681-57-4	disodium disulphite					
	Acute fish toxicity	LC50 > 215 - < 464 mg/l	96 h	Leuciscus idus	Study report (1989)	other: German industrial standard test g
	Acute algae toxicity	ErC50 43,8 mg/l	72 h	Desmodesmus subspicatus	Study report (1989)	OECD Guideline 201
	Acute crustacea toxicity	EC50 89 mg/l	48 h	Daphnia magna	Study report (1990)	other: 79/831/EEC, appendix V, part C
	Fish toxicity	NOEC >= 316 mg/l	34 d	Danio rerio	Study report (2010)	OECD Guideline 210
	Crustacea toxicity	NOEC > 10 mg/l	21 d	Daphnia magna	Study report (1993)	OECD Guideline 211
	Acute bacteria toxicity	(EC50 > 1000 mg/l)	3 h	activated sludge of a predominantly domestic sewage	Study report (2010)	OECD Guideline 209
55-55-0	bis(4-hydroxy-N-methylanilinium) sulphate					
	Acute fish toxicity	LC50 0,925 mg/l	96 h	Oryzias latipes	J-check (Japan Chemicals Collaborative K)	OECD Guideline 203
	Acute algae toxicity	ErC50 0,506 mg/l	72 h	Pseudokirchneriella subcapitata	REACH Registration Dossier	other: Predicted data
	Acute crustacea toxicity	EC50 0,724 mg/l	48 h	Daphnia magna	REACH Registration Dossier	other: Predicted data

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
55-55-0	bis(4-hydroxy-N-methylanilinium) sulphate	0,79

**BCF**

CAS No	Chemical name	BCF	Species	Source
55-55-0	bis(4-hydroxy-N-methylanilinium) sulphate	3,162	Fish	REACH Registration D

**12.4. Mobility in soil**

There are no data available on the mixture itself.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

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**Further information**

Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

**Contaminated packaging**

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

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

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

**Inland waterways transport (ADN)**

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

**Marine transport (IMDG)**

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

**Air transport (ICAO-TI/IATA-DGR)**

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

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

**14.7. Maritime transport in bulk according to IMO instruments**

No dangerous good in sense of this transport regulation.

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

**National regulatory information**

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Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).  
Water hazard class (D): 2 - obviously hazardous to water

**SECTION 16: Other information**

**Changes**

This data sheet contains changes from the previous version in section(s): 2,4,5,7,9,10,11,12,13,14,15.

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

Classification	Classification procedure
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 3; H412	Calculation method

**Relevant H and EUH statements (number and full text)**

H302 Harmful if swallowed.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.  
EUH031 Contact with acids liberates toxic gas.

**Further Information**

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. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*