



According to Directive 1907/2006/EC (REACH) and 453/2010/EU Version 1.3 Date: 01/03/2023

1 Identification of the Substance/Mixture and of the Company

1.1 Product identifier

Product name Universal Column for PCB/Dioxin Analysis
Product number 15068, 19511

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

Relevant identified uses: Product for analytical use.
Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21,
PROC 15, AC 0
The exposure scenario is integrated into sections 1-16.
Uses advised against: not described

1.3 Details of the supplier of the safety data sheet

Company: LCTech GmbH
 Daimlerstr. 4
 D 84419 Obertaufkirchen
 Tel: +49 8082 2717-0
 Fax: +49 8082 2717-100
 E-mail: info@LCTech.de

1.4 Emergency telephone number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.

DE: Gemeinsames Giftinformationszentrum (GGIZ)
 99089 Erfurt, Tel. +49 361 730730

Missing subsections are not relevant for the risk assessment of the product and may be omitted programmatically.

2 Hazard Identification

2.1 Classification of the substance(s) or mixture(s) – in the complete product

CLP Directive 1272/2008/EC
GHS pictograms



GHS05



GHS07

Signal word DANGER



According to Regulation (EC) No 1907/2006

Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511

Hazard identification	Hazard classes/categories
H314	Skin Corrosion 1A. Serious Damage to Eyes 1
H315	Skin Irritation cat. 2
H319	Eye Irritation cat. 2
H412	Hazardous to the aquatic environment - chronic cat. 3

2.2 Label Elements

Harmful chemicals/mixtures with signal word: WARNING must not be labelled with H and P phrases until 125 mL or 125 g (EU 1272/2008 Annex I - 1.5.2).

CLP Directive 1272/2008/EC

GHS pictograms



GHS05



GHS07

Signal word DANGER

H314

Causes severe skin burns and eye damage.

P260D, P280sh, P301+330+331, P303+361+353, P304+340, P305+351+338, P501
Do not breathe vapours. Wear protective gloves/eye protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Dispose of contents/container to regulated waste treatment.

2.3 Other Hazards

Possible Hazards from physicochemical Properties:

Generally in the case of pH values are less than 2 or higher than 11.5 then it is corrosive. In the case of pH values are less than 5 or higher than 9 then it is irritant.

Information pertaining to particular Risks to Human and possible Symptoms:

Causes varying degrees of acid burns on the skin, to the eyes and to the mucous membranes and wounds which do not heal quickly depending on the concentration, temperature and the exposure time. Vapours especially which steam from hot liquids and mist can have a severe irritant effect upon the eyes and the respiratory organs.

Information pertaining to particular Risks to the Environment:

--- Avoid contact of substance/mixture to environment ---

P BT: not applicable

v PvB: not applicable



According to Regulation (EC) No 1907/2006

Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511

Other Hazards

--- It is not possible to declare fine dust (< 12 µm) as dangerous or not. We recommend not to inhale product dust. Dust may cause damage of the inhalatory system if inhaled over a longer period.

2.3 Description of the components

10 pc Universal Column for PCB/Dioxin Analysis

CLP Directive 1272/2008/EC

GHS pictograms



GHS05

Signal word

DANGER

Hazard identification

H314

Hazard classes/categories

Skin Corrosion 1A

Serious Damage to Eyes 1

3 Composition/Information on Ingredients

3.1 Substances or 3.2 Mixtures

10 pc Universal Columns for Dioxin Analysis

Chemical: silica	CAS No.:	7631-86-9
Concentration:	50 - 80 %	
Formula:	SiO ₂	
Pseudonym:	Silicon dioxide, Diatomite, precipitated amorphous silica	
REACH Reg. No.:	01-2119379499-16-XXXX	
REACH Preregistration (for):	05-2114282046-51-0000 (2018)	
EC No.:	231-545-4	
RTECS: VV7315000	MFCD:	00011232
TSCA Inventory:	listed	
KE No.:	KE-31032	
acc. CLP (GHS):	not necessary	
Chemical: sulphuric acid	CAS No.:	7664-93-9
Concentration:	30 - 51 %	
Formula:	H ₂ SO ₄	
REACH Reg. No.:	01-2119458838-20-xxxx	
EC No.: 231-639-5	Indice No.:	016-020-00-8
RTECS:	WS5600000	
TSCA Inventory:	listed	
acc. CLP (GHS):	H314	

**According to Regulation (EC) No 1907/2006****Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511**

Chemical: silver nitrate	CAS No.:	7761-88-8
Concentration:	1 - 5 %	
Formula:	AgNO ₃	
REACH Reg. No.:	01-2119513705-43-xxxx	
EC No.: 231-853-9	Indice No.:	047-001-00-2
RTECS:	VW4725000	
TSCA Inventory:	listed	
KE No.:	KE-31281, >25% Toxic 97-1-92	
acc. CLP (GHS):	H315, H319, H412	

3.2 Remarks

List of H phrases: see chapter 16

4 First Aid Measures**4.1 Description of first aid measures**

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice. Remove contaminated clothing. Show product package, packing insert and this material safety data sheet to the doctor.

After SKIN Contact

Remove contaminated clothing immediately. Rinse the affected skin or mucous membrane thoroughly for min. 15 minutes under running water. Avoid neutralisation. Then apply a loose bandage.

After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open for min. 10 minutes with eye washing bottle, eye douche or running water (protect intact eye). Before (if possible) apply eye drops Proxymetacaine 0.5%, if the opening the eyelid convulsion is painful. Further treatment to be carried out by an eye specialist.

After INHALATION of Vapours

If vomiting and if insensible place patient in recovery position and keep airways free.

After ORAL Intake

After oral intake lots of water with activated charcoal supplement should be drunk after it has been ingested. Do not induce vomiting under any circumstances. Do not make any efforts to neutralise it. Contact medical advice for possible consequences.

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

CORROSIVE DAMAGE: After SKIN CONTACT rinse with water for a long time. Efforts to neutralise the substance can frequently make matters worse. Apply glucocorticosteroides following inflammatory reactions.

After EYE CONTACT rinse immediately with plenty of water for a long time. Eyelid convulsion measures. Name the corrosive chemical. Further treatment must be carried out by an eye specialist. After INTAKE administer aluminium oxide drug suspensions. Administer a prophylaxis to counter pulmonary oedema following the

**According to Regulation (EC) No 1907/2006****Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511**

INGESTION of corrosive aerosols. In the event of RESPIRATORY DISTRESSES ensure that the patient inhales oxygen.

5 Firefighting Measures**5.1 Extinguishing media**

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

5.2 Special hazards arising from the substance or mixture

Danger for environment only in the event of a large-scale leakage or formation of hazardous substances.

5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

For great amount - if necessary - protective breathing apparatus which is independent of the ambient air (isolated equipment), and sealed protective clothing is necessary in the event of a large-scale formation of toxic substances.

5.4 Additional Information

6 Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear suitable protective gloves (see 8.2). Wear eye protection, respectively face protection. Regular staff training is necessary, indicating hazards and precautions on the basis of operating instructions. Restrictions on activity must be observed.

6.2 Environmental precautions

Not necessary, contains only small amounts of these substances

6.3 Methods and material for containment and cleaning up

And dispose in accordance to local regulations for the disposal of hazardous chemicals. Clean any contaminated equipment and floors with plenty of water.

6.4 Reference to other sections



According to Regulation (EC) No 1907/2006

Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511

7 Handling and Storage

7.1 Precautions for safe handling

7.2 Conditions for safe storage, including any incompatibilities

The original product package allows a safe storage. Storage class (German chemical industry): see chapter 12.1

Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage. Use inbreakable container for transport of glass bottles.

7.3 Specific end use(s)

8 Exposure Controls/Personal Protection

8.1 Control parameters

10 pc Universal Columns for Dioxin Analysis

Chemical: silica CAS No.: 7631-86-9

TRGS 900 (DE): 1,25 A / 4 E mg/m³

E/e respirable

Short-term exposure factor: Y

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 4 e mg/m³

NIOSH: Occupational Carcinogen List yes, TWA 6 mg/m³

OSHA: TWA 20 mppcf / 80 mg/m³

Chemical: sulphuric acid CAS No.: 7664-93-9

EU value: 0.1 e mg/m³

TRGS 900 (DE): 0.1 E mg/m³

E/e respirable

Short-term exposure factor: 1 (I), Y

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 0.1 e mg/m³

NIOSH: NTP Report on Carcinogens (RoC) List Yes (Known to be a human carcinogen); TWA 1 mg/m³

OSHA: TWA 1 mg/m³

**According to Regulation (EC) No 1907/2006****Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511**

Chemical: silver nitrate	CAS No.: 7761-88-8
EU value:	0.01 _{Ag} e mg/m ³
TRGS 900 (DE):	0.01 _{Ag} e mg/m ³ E/e respirable
Short-term exposure factor:	2 (I)
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded	
SUVA(CH) MAK value:	0.1 e mg/m ³
NIOSH:	TWA 0.01 mg/m ³
OSHA:	TWA 0.01 mg/m ³

8.2 Exposure controls

The highest level of cleanliness must be maintained at the workplace.

Respiratory Protection

Only if additional recommendations in test instruction or packing insert. Use for regular working with dry powders a dust mask or a dust protection filter, class P3.

Hand Protection

Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC (f.ex. from Ansell or KCL).

Eye Protection

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection or face protection.

Skin Protection

Recommended to avoid clothing damage, and to avoid contamination with these hazards.

Personal Hygiene

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

9 Physical and Chemical Properties**9.1 Information on basic physical and chemical properties**

10 pc Cartridges Universal Column for Dioxin Analysis

Appearance: solid Color: colourless Odor: odorless

9.2 Other information**Relevant Properties of Substance Group**



According to Regulation (EC) No 1907/2006

Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511

10 Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Not necessary. Only if on label.

10.5 Incompatible materials

Avoid contact with strong acids or alkalines.

10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

11 Toxicological information

11.1 Information on toxicological effects

Following information is valid for pure substances.

10 pc Universal Column for PCB/Dioxin Analysis

Chemical:	silica	CAS No.: 7631-86-9
TSCA Inventory:	listed	California Proposition 65 List: not listed
Exposure Routes:	inhalation, skin and/or eye contact	
Target Organs:	Eyes, respiratory system	
Symptoms:	irritation eyes, pneumoconiosis	
Australia NICNAS:	not listed	Canada CEPA 1999: DSL yes
Japan CSCL/PRTR:	not listed	
Japan PDSCL:	not listed	Japan ISHL: Article 57-2 (SDS required)
South Korea TCCA:	not listed	
Korea Exist.Chem.Inventory:	KE-31032	
LD50orl rat :	>>2000 mg/kg	
TRGS 905 (DE):	R _F C	



According to Regulation (EC) No 1907/2006

Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511

Chemical:	sulphuric acid	CAS No.: 7664-93-9
TSCA Inventory:	listed	California Proposition 65 List: not listed
ACGIH:	1 ppm	
Exposure Routes:	inhalation, ingestion, skin and/or eye contact	
Target Organs:	Eyes, skin, respiratory system, teeth	
Symptoms:	irritation eyes, skin, nose, throat; pulmonary edema, bronchitis; emphysema; conjunctivitis; stomatis; dental erosion; eye, skin burns; dermatitis	
Australia NICNAS:	not listed	Canada CEPA 1999: DSL Yes
Japan CSCL/PRTR:	not listed	
Japan PDSCL:	Deleterious Substance Yes	
Japan ISHL:	Article 57-2 (SDS required)	
South Korea TCCA:	Accident Precaution Chemical Yes	
Korea Exist.Chem.Inventory:	KE-32570, >10% Toxic 97-1-405, Acc. Precaution Chem.	
LD50 _{orl rat} :	2140 mg/kg	
LC50 _{ihl mouse} :	320 _{4h} mg/L	
LC50 _{ihl rat} :	510 mg/m ³	
TRGS 905 (DE):	R _F C	
Chemical:	silver nitrate	CAS No.: 7761-88-8
TSCA Inventory:	listed	
Exposure Routes:	inhalation, ingestion, skin and/or eye contact	
Target Organs:	Nasal septum, skin, eyes	
Symptoms:	Blue-gray eyes, nasal septum, throat, skin; irritation, ulceration skin; gastrointestinal disturbance	
Korea Exist.Chem.Inventory:	KE-31281, >25% Toxic 97-1-92	
LD50 orl rat :	1173 mg/kg	
TRGS 905 (DE):	R _F D	

12 Ecological information

12.1 Toxicity

Following information is valid for pure substances.

10 pc Universal Columns for Dioxin Analysis

Chemical:	silica	CAS No.: 7631-86-9
WGK (DE):	nwg WGK No.: 0849	
Storage class (VCI):	13	
Chemical:	sulphuric acid	CAS No.: 7664-93-9
LC50 _{fish/96h} :	16-29 mg/L	
EC50 _{daphnia/48h} :	29 _{24h} mg/L	
WGK (DE):	1 WGK No.: 0182	
Storage class (VCI):	8 B	

**According to Regulation (EC) No 1907/2006****Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511**

Chemical: silver nitrate CAS No.: 7761-88-8
Harmful to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment.
Environmental hazards must not be labelled with P phrases until 125 mL or 125 g (EU 1272/2008 Annex I - 1.5.2).
WGK (DE): 3 WGK No.: 0185
Storage class (VCI): 5.1 B

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

13 Disposal Considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

13.1 Waste treatment methods

Empty containers of corrosive reagents prior to disposal, rinse with water.

14 Transport Information**14.1 UN No.: 3260****14.2 Proper shipping name: Corrosive solid, acidic, inorganic, n.o.s. (sulphuric acid mixture)****14.3 Class: 8****14.4 Packing group: II**Road transport

Classification code: C2

Limited Quantity: 1 Kg

Excepted Quantity: E 2

Tunnel restriction code: E



According to Regulation (EC) No 1907/2006

Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511

Air transport

PAX:	859	max. weight PAX:	15 Kg
CAO:	863	max. weight CAO:	50 Kg

Maritime transport

EmS:	F-A, S-B	Storage category:	B
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15 Regulatory Information

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

German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013

German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC

TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011

15.2 Chemical safety assessment

not necessary for these small amounts

16 Other Information

16.1 List of H phrases

List of relevant H phrases

H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

16.2 Training Advice

Multiple safety training of staffs about danger and protection by using hazards in working area. Additionally training and introduction of staffs for using these products.

16.3 Recommended Restriction on Use

Only for professional user.

Look about employee restrictions for young people (f. ex. 94/33/EC or DE § 22 JArbSchG)!

Look about employee restrictions for pregnant women and nursing women (f.ex. 92/85/EEC or DE §§ 4 und 5 MuSchRiV)!

An individual package of this product or test kit has a moderate hazardous potential.

**According to Regulation (EC) No 1907/2006****Productname: Universal Column for PCB/Dioxin Analysis, P/N: 15068, 19511****16.4 Further Information**

LCTech GmbH provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose. LCTech GmbH makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly LCTech GmbH will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

16.5 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4th adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated February 2015

SUVA .CH, Limits in air at work 2009, revised on 01.2009

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

16.6 Revisions/Updates

Reason for Revision:

2014-02 Corrected structure of sections acc. regulation 453/2010/EU, if necessary

2014-04 Adaptation of regulation 487/2013/EU

2 016-03 Adaptation of regulation 1221/2015/EU