

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

KGE187SW GL COLUMBIA



REIMBOLD & STRICK

Handels- und Entwicklungsgesellschaft
für chemisch-keramische Produkte mbH

Version 1 Date of compilation: 6/02/2020
Version 3 (replaces version 2)

Revision date: 07/02/2024

Page 1 of 9
Print date: 08/02/2024

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

1.1 Product identifier.

Product Name: KGE187SW GL COLUMBIA
UFI: XW41-R095-300G-AKT7

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

Ceramic use.

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **REIMBOLD UND STRICK HANDELS**
Address: Hansestr. 70
City: 51149 Köln
Telephone: +49 2203 8985-0
E-mail: info@reibold-und-strick.de
Web: www.reibold-und-strick.de

1.4 Emergency telephone number: + 49(0) 70024112112 (RSD) / +1 872 5888271 (RSD) / inside USA: +11 49(0) 70024112112 (RSD) / +1 872 5888271 (RSD) (Available 24 hours)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture.

In accordance with Regulation (EC) No 1272/2008:

Carc. 2 : Suspected of causing cancer.

Resp. Sens. 1 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2 Label elements.

Labelling in accordance with Regulation (EC) No 1272/2008:

Pictograms:



Signal Word:

Danger

Hazard statements:

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H351 Suspected of causing cancer.

Precautionary statements:

P201 Obtain special instructions before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 [In case of inadequate ventilation] wear respiratory protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
P501 Dispose of contents/container according with current regulation.

Contains:
tricobalt tetraoxide
Rutile (TiO₂)

-Continued on next page.-

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REIMBOLD & STRICK

Handels- und Entwicklungsgesellschaft
für chemisch-keramische Produkte mbH

Page 2 of 9

Print date: 08/02/2024

2.3 Other hazards.

The mixture does not contain substances classified as PBT.
The mixture does not contain substances classified as vPvB.
The mixture does not contain any endocrine disrupting properties substances.

The product may have the following additional risks:
No other hazardous known as mentioned.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Not applicable.

3.2 Mixtures.

Identifiers	Name	Concentrate	(*)Classification - Regulation (EC) No 1272/2008	
			Classification	Specifics concentration limits and Acute toxicity estimate
CAS No: 1317-80-2 EC No: 215-282-2	Rutile (TiO ₂)	>=2.5% <5%	Carc. 2, H351	-
CAS No: 1308-06-1 EC No: 215-157-2 Registration No: 01-2119517310-56-XXXX	tricobalt tetraoxide	>=1% <2.5%	Aquatic Chronic 3, H412 - Resp. Sens. 1, H334	-

(*) The complete text of the H phrases is given in section 16 of this Safety Data Sheet.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.

Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Dont let the person to rub the affected eye.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

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

Long-term chronic exposure may result in injury to certain organs or tissues.
It may cause an allergic reaction in the respiratory system. Chronic exposure can lead to asthma.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Keep the person comfortable. Turn him/her over to the left side and stay there while waiting for medical care.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

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Version 1 Date of compilation: 6/02/2020
Version 3 (replaces version 2)

Revision date: 07/02/2024



REIMBOLD & STRICK

Handels- und Entwicklungsgesellschaft
für chemisch-keramische Produkte mbH

Page 3 of 9

Print date: 08/02/2024

SECTION 5: FIREFIGHTING MEASURES.

The product is NOT classified as flammable, in case of fire the following measures should be taken:

5.1 Extinguishing media.

Suitable extinguishing media:

Extinguisher powder or CO₂. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:

Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

5.2 Special hazards arising from the substance or mixture.

Special risks.

Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Product not classified as hazardous for the environment, avoid spillage as much as possible.

6.3 Methods and material for containment and cleaning up.

Contain and collect spillage with inert absorbent material (earth, sand, vermiculite, Kieselguhr...) and clean the area immediately with a suitable decontaminant.

Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations (see section 13).

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

For personal protection, see section 8.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 25 °C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

The product is not affected by Directive 2012/18/EU (SEVESO III).

7.3 Specific end use(s).

Not available.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

KGE187SW GL COLUMBIA



REIMBOLD & STRICK

Handels- und Entwicklungsgesellschaft
für chemisch-keramische Produkte mbH

Version 1 Date of compilation: 6/02/2020
Version 3 (replaces version 2)

Revision date: 07/02/2024

Page 4 of 9
Print date: 08/02/2024

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Type	Value
tricobalt tetraoxide CAS No: 1308-06-1 EC No: 215-157-2	DNEL (Workers)	Inhalation, Chronic, Local effects	54,5 ($\mu\text{g}/\text{m}^3$)
	DNEL (Consumers)	Inhalation, Chronic, Local effects	8,6 ($\mu\text{g}/\text{m}^3$)
	DNEL (Consumers)	Oral, Chronic, Systemic effects	12 (mg/kg bw/day)

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

Concentration levels PNEC:

Name	Details	Value
tricobalt tetraoxide CAS No: 1308-06-1 EC No: 215-157-2	Fresh water	0,6 ($\mu\text{g}/\text{l}$)
	Seawater	2,36 ($\mu\text{g}/\text{l}$)
	STP	0,37 (mg/l)
	Freshwater sediment	9,5 (mg/kg)
	Seawater sediment	9,5 (mg/kg)
	Soil	10,9 (mg/kg)

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	100 %		
Uses:	Ceramic use.		
Breathing protection:			
PPE:	Filter mask for protection against particles.		
Characteristics:	«CE» marking, category III. The mask must have a wide field of vision and an anatomically designed form in order to be sealed and watertight.		
CEN standards:	EN 149		
Maintenance:	The mask must be changed periodically and in any case after every work shift. Never modificate the equipment.		
Observations:	Use when exceeding TLV for one or more substances contained in the mixture.		
Hand protection:			
PPE:	Protective gloves against chemicals.		
Characteristics:	«CE» marking, category III.		
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420		
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.		
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.		
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480
		Material thickness (mm):	0,35

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

KGE187SW GL COLUMBIA



REIMBOLD & STRICK

Handels- und Entwicklungsgesellschaft
für chemisch-keramische Produkte mbH

Version 1 Date of compilation: 6/02/2020
Version 3 (replaces version 2)

Revision date: 07/02/2024

Page 5 of 9
Print date: 08/02/2024

Eye protection:

PPE:	Protective goggles against particle impacts.	
Characteristics:	«CE» marking, category II. Eye protector against dust and smoke.	
CEN standards:	EN 165, EN 166, EN 167, EN 168	
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.	
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.	

Skin protection:

If the product is handled correctly, no individual protection equipment is necessary.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Physical state: Solid - Dust

Colour: grey

Odour: odourless

Odour threshold: not available

Melting point: not available °C

Freezing point: Not applicable/Not available due to the nature/properties of the product

Boiling point or initial boiling point and boiling range: Not applicable/Not available due to the nature/properties of the product

Flammability: It does not contain chemical groups associated with flammable properties

Lower explosion limit: It does not contain chemical groups associated with flammable properties

Upper explosion limit: It does not contain chemical groups associated with flammable properties

Flash point: Not applicable/Not available due to the nature/properties of the product

Auto-ignition temperature: It does not contain chemical groups associated with flammable properties °C

Decomposition temperature: not available °C

pH: Not applicable due to the nature of the product: solid.

Kinematic viscosity: not applicable due to the nature of the product: solid

Solubility: not available

Hydrosolubility: N/A

Liposolubility: not available

Partition coefficient n-octanol/water (log value): not available

Vapour pressure: not available

Absolute density: Not applicable/Not available due to the nature/properties of the product

Relative density: 3,111 (Estimation based on the indication of the Regulation (CE) N°1272/2008.)

Relative vapour density: not available

Particle characteristics: Not applicable/Not available due to the nature/properties of the product

9.2 Other information

Viscosity: Not applicable due to the nature of the product: solid.

Explosive properties: It does not contain chemical groups associated with explosive properties

Oxidizing properties: It does not contain chemical groups associated with oxidizing properties

Dropping point: not available

Blink: not available

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Stable under the recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions.

The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.

Avoid any improper handling.

10.5 Incompatible materials.

Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

KGE187SW GL COLUMBIA

Version 1 Date of compilation: 6/02/2020
Version 3 (replaces version 2)

Revision date: 07/02/2024



REIMBOLD & STRICK

Handels- und Entwicklungsgesellschaft
für chemisch-keramische Produkte mbH

Page 6 of 9

Print date: 08/02/2024

10.6 Hazardous decomposition products.

No decomposition if used for the intended uses.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on hazard classes as defined in Regulation (EC) N° 1272/2008.

Toxicological information about the substances present in the composition.

Name	Acute toxicity			
	Type	Test	Kind	Value
tricobalt tetraoxide CAS No: 1308-06-1 EC No: 215-157-2	Oral	LD50	Rat	> 5000 mg/kg bw [1] [1] Acute Toxicity Data. Journal of the American College of Toxicology, Part B. Vol. 1, Pg. 696, 1992.
	Dermal	LD50	Rat	>2000 mg/kg
	Inhalation	LC50	Rat	>5.06 mg/l (4h)

a) acute toxicity;

Not conclusive data for classification.

b) skin corrosion/irritation;

Not conclusive data for classification.

c) serious eye damage/irritation;

Not conclusive data for classification.

d) respiratory or skin sensitisation;

Product classified:

Respiratory sensitiser, Category 1: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

e) germ cell mutagenicity;

Not conclusive data for classification.

f) carcinogenicity;

Product classified:

Carcinogen, Category 2: Suspected of causing cancer.

g) reproductive toxicity;

Not conclusive data for classification.

h) STOT-single exposure;

Not conclusive data for classification.

i) STOT-repeated exposure;

Not conclusive data for classification.

j) aspiration hazard;

Not conclusive data for classification.

11.2 Information on other hazards.

Endocrine disrupting properties

This product does not contain components with endocrine-disrupting properties with effects on human health.

Other information

There is no information available on other adverse health effects.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

No information is available regarding the ecotoxicity of the substances present.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

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Version 1 Date of compilation: 6/02/2020
Version 3 (replaces version 2)

Revision date: 07/02/2024



REIMBOLD & STRICK

Handels- und Entwicklungsgesellschaft
für chemisch-keramische Produkte mbH

Page 7 of 9

Print date: 08/02/2024

12.2 Persistence and degradability.

No information is available regarding the biodegradability of the substances present.
No information is available on the degradability of the substances present.
No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.

No information is available regarding the bioaccumulation of the substances present.

12.4 Mobility in soil.

No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Endocrine disrupting properties.

This product doesn't contain components with environmental endocrine disrupting properties.

12.7 Other adverse effects.

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.
No information is available about other adverse effects for the environment.

SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.
Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

14.1 UN number or ID number.

Transportation is not dangerous.

14.2 UN proper shipping name.

Description:

ADR/RID: Not classified as hazardous for transport.

IMDG: Not classified as hazardous for transport.

ICAO/IATA: Not classified as hazardous for transport.

14.3 Transport hazard class(es).

Transportation is not dangerous.

14.4 Packing group.

Transportation is not dangerous.

14.5 Environmental hazards.

Transportation is not dangerous.

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): Not applicable.

14.6 Special precautions for user.

Transportation is not dangerous.

14.7 Maritime transport in bulk according to IMO instruments.

Not classified as hazardous for transport.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

KGE187SW GL COLUMBIA



REIMBOLD & STRICK

Handels- und Entwicklungsgesellschaft
für chemisch-keramische Produkte mbH

Version 1 Date of compilation: 6/02/2020
Version 3 (replaces version 2)

Revision date: 07/02/2024

Page 8 of 9
Print date: 08/02/2024

SECTION 15: REGULATORY INFORMATION.

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

Volatile organic compound (VOC)

VOC content (p/p): 0 %

VOC content: 0 g/l

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

Kind of pollutant to water (Germany): WGK 2: Hazardous to water. (Autoclassified according to the AwSV Regulations)

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

This product contain ceramic frit subgroup 4 according:

2009 Validity Assessment of the Exemption Dossier Ceramic Frits, RCC Ltd,
Switzerland, 2007, Harlan Laboratories Ltd, 2009

Industrial Classification system for frits.

The members of the Frit Consortium have agreed on an internal classification system, in order to group the frits in different categories. The criteria followed to develop this system is based on the elements contained in the frit, the information available and the typology of the frit.

For more information, please visit the official web page: <http://fritconsortium.eu>

Complete text of the H phrases that appear in section 3:

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H351 Suspected of causing cancer.
H412 Harmful to aquatic life with long lasting effects.

Classification codes:

Aquatic Chronic 3 : Chronic effect to the aquatic environment, Category 3
Carc. 2 : Carcinogen, Category 2
Resp. Sens. 1 : Respiratory sensitiser, Category 1

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Information on the TSCA Inventory (Toxic Substances Control Act) USA:

CAS No	Name	State
1317-80-2	Rutile (TiO ₂)	Registered8
1308-06-1	tricobalt tetraoxide	Registered8

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)

KGE187SW GL COLUMBIA



REIMBOLD & STRICK

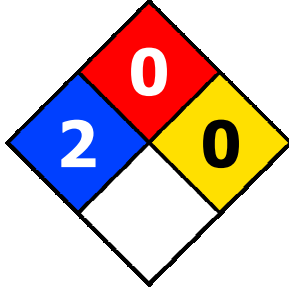
Handels- und Entwicklungsgesellschaft
für chemisch-keramische Produkte mbH

Version 1 Date of compilation: 6/02/2020
Version 3 (replaces version 2)

Revision date: 07/02/2024

Page 9 of 9
Print date: 08/02/2024

Risk classification system NFPA 704:



Health hazard: 2 (Hazardous)

Flammability: 0 (Will not burn)

Reactivity: 0 (Stable)

Abbreviations and acronyms used:

AwSV: Facility Regulations for handling substances that are hazardous for the water.

CEN: European Committee for Standardization.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

PPE: Personal protection equipment.

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

WGK: Water hazard classes.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.