SAFETY DATA SHEET
Grolleg™ Lump

According to the REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577, as amended.

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

1.1. Product identifier

Product name	Grolleg™ Lump
Substance Name	Kaolin
Chemical name	Hydrous Aluminium Silicate
EU REACH registration notes	Exempted in accordance with REACH Annex V.7
CAS number	1332-58-7
EC number	310-194-1

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

Identified uses	Main applications - non-exhaustive list: Ceramics (sanitaryware, floor tiles, wall tiles, roof tiles, tiles; porcelain, tableware, refractories, etc.)

1.3. Details of the supplier of the safety data sheet

Supplier	Imerys Minerals Ltd Imerys Technology Centre UK Par Moor Road Par, Cornwall England PL24 2SQ Tel. +44(0)1726 818000 Fax. +44(0)1726 811200 SDS.expert@imerys.com
Contact person	Please approach your usual Imerys contact in the first instance.

1.4. Emergency telephone number

Emergency telephone	CHEMTREC + 1 703 527 3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified

Human health	This product does not meet the criteria for classification as hazardous as defined in the Regulation EC 1272/2008. It is recommended that due regard be taken of the specified constituents in deriving an Occupational Exposure Standard for the workplace.
Environmental	The product is not expected to be hazardous to the environment.

Grolleg™ Lump

Physicochemical This product should be handled with care to avoid dust generation.

2.2. Label elements

EC number 310-194-1

Hazard statements NC Not Classified

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current UK criteria. No other hazards identified

Endocrine disrupting properties Available data for the substance have been considered against the criteria laid down in Regulations ((EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605) and found not to apply.

SECTION 3: Composition/information on ingredients

3.1. Substances

KAOLIN	**100%**
CAS number: 1332-58-7	EC number: 310-194-1
Classification Not Classified	

The full text for all hazard statements is displayed in Section 16.

Product name Grolleg™ Lump

Chemical name Hydrous Aluminium Silicate

EU REACH registration notes Exempted in accordance with REACH Annex V.7

CAS number 1332-58-7

EC number 310-194-1

Ingredient notes This product is 100% Kaolin, which is a UVCB substance sub-type 4. This product does not contain any SVHC substances at levels greater than 0.1 % by weight.

Composition comments This product contains less than 1% quartz (fine fraction). Quartz:CAS-No.:14808-60-7 EC No.: 238-878-4. The classification of the product is shown in section 2 of this safety data sheet.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information No acute and delayed symptoms and effects are observed.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion No special treatment required. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.

Skin contact No special first aid measures necessary.

Eye contact Do not rub eye. Rinse with copious quantities of water and seek medical attention if irritation persists.

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

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

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

Grolleg™ Lump

Notes for the doctor No specific recommendations.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media This product is non-combustible. No specific extinguishing media is needed. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media No restriction on the extinguishing media to be used.

5.2. Special hazards arising from the substance or mixture

Specific hazards Non combustible. No hazardous thermal decomposition.

5.3. Advice for firefighters

Protective actions during firefighting No specific fire-fighting protection is required. Use an extinguishing agent suitable for the surrounding fire. Product on floor when wetted will become slippery and may present a hazard; wear anti-slip boots.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid airborne dust generation, wear personal protective equipment in compliance with national legislation.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Alternatively shovel into bags. Product on floor when wetted will become slippery and may present a hazard; wear anti-slip boots.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier. Do not eat, drink and smoke in work areas; wash hands after use; remove contaminated clothing and protective equipment before entering eating areas. Product on floor when wetted will become slippery and may present a hazard; wear anti-slip boots. For personal protection, see Section 8.

Advice on general occupational hygiene Keep dust levels to a minimum. Minimize dust generation. General occupational hygiene measures are required. These include good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices). Shower and change clothes at end of work shift. Change work clothing daily before leaving workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in a dry covered area. Minimise airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting.

7.3. Specific end use(s)

Usage description If you require advice on specific uses, please contact your supplier.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

A European Binding OEL (Occupational Exposure Limit) for respirable crystalline silica dust is set at 0.1 mg/m³ in the Directive (EU) 2017/2398, measured as an 8-hour TWA (Time Weighted Average).

KAOLIN

Long-term exposure limit (8-hour TWA): WEL 2 mg/m³ respirable dust

Inorganic dust

Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust
Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

Quartz

Long-term exposure limit (8-hour TWA): WEL 0,1 mg/m³ respirable dust
WEL = Workplace Exposure Limit.

Ingredient comments Maintain personal exposure below occupational exposure limits for dust (inhalable and respirable) as dictated in the national legislation.

8.2. Exposure controls

Appropriate engineering controls Minimise airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organisational measures, e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing. ..

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield. Contact lenses should not be worn when working with this product.

Hand protection Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). Neoprene. Rubber (natural, latex).

Other skin and body protection For skin, normal work clothes are appropriate.

Hygiene measures When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Use appropriate skin cream to prevent drying of skin.

Respiratory protection	Local ventilation to control airborne dust levels below occupational exposure limits is recommended. In case of exposure, where engineering controls are insufficient, the use of Respiratory Protective Equipment (RPE) is recommended. A risk assessment process must be followed to ensure adequate protection from the airborne dust. The type of RPE must suit the work situation and the specific requirements of the wearer. Other environmental conditions should also be considered. The minimum “Assigned Protection Factor” (APF) required will depend on the measured or predicted occupational exposure levels divided by the OEL detailed in section 8.1. Filters specified as FFP2 and P2 have an APF of 10. Correctly fitted, these would reduce the exposure to the wearer down to one tenth of the working atmosphere. Depending on the assessment of the exposure, a lesser or higher efficiency of filter may be required. The manufacturer’s instructions and regulatory guidance regarding duration of use and correct fitting should be followed. The wearer of the selected RPE should receive training before use.
Environmental exposure controls	All ventilation systems should be filtered before discharge to atmosphere. Avoid releasing into the environment. Contain the spillage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Lump.
Colour	White/off-white.
Odour	Almost odourless.
Odour threshold	Not applicable.
pH	5 - 8 @ 10 % Slurry.
Melting point	>450°C EU Method A1
Initial boiling point and range	not applicable (Solid with a melting point > 450°C)
Flash point	not applicable (Solid with a melting point > 450°C)
Evaporation rate	not applicable (Solid with a melting point > 450°C)
Flammability (solid, gas)	Non flammable EU method A10
Upper/lower flammability or explosive limits	Non explosive (void of any chemical structures commonly associated with explosive properties)
Vapour pressure	not applicable (Solid with a melting point > 450°C)
Vapour density	not applicable (Solid with a melting point > 450°C)
Relative density	2.6 - 2.7
Bulk density	1.2 g/cm³
Solubility(ies)	< 1 mg/L @ 20°C
Partition coefficient	Not applicable (inorganic substance)
Auto-ignition temperature	No relative self-ignition temperature below 400 °C EU method A16
Decomposition Temperature	Not applicable (Solid with a melting point > 450°C)
Viscosity	Not applicable (Solid with a melting point > 450°C)
Explosive properties	There are no chemical groups present in the product that are associated with explosive properties.

Grolleg™ Lump

Oxidising properties There are no chemical groups present in the product that are associated with oxidising properties.

9.2. Other information

Other information No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions There are no known reactivity hazards associated with this product.

10.4. Conditions to avoid

Conditions to avoid No particular incompatibility.

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation Dust in high concentrations may irritate the respiratory system.

Ingestion No harmful effects expected from quantities likely to be ingested by accident.

Skin contact Prolonged contact may cause dryness of the skin.

Eye contact Particles in the eyes may cause irritation and smarting.

Endocrine disrupting properties Available data for the substance have been considered against the criteria laid down in Regulations ((EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605) and found not to apply.

Other information None

Toxicological information on ingredients.

KAOLIN

Acute toxicity - oral

Notes (oral LD_{50}) LD_{50} >2000 mg/kg, Oral, Rat OECD 420

Acute toxicity - dermal

Notes (dermal LD_{50}) LD_{50} >2000 mg/kg, Dermal, Rat OECD 402

Acute toxicity - inhalation

Notes (inhalation LC_{50}) LC50 >5.07 mg/l, Inhalation, Rat OECD 436

Grolleg™ Lump

Skin corrosion/irritation

Skin corrosion/irritation Kaolin is not irritating to skin (OECD 404, rabbit).

Serious eye damage/irritation

Serious eye damage/irritation Kaolin is not irritating to eye (OECD 405, rabbit).

Respiratory sensitisation

Respiratory sensitisation Mouse: Not sensitising. OECD 429

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: Not sensitising. OECD 429

Germ cell mutagenicity

Genotoxicity - in vitro No specific test data are available.

Genotoxicity - in vivo No specific test data are available.

Carcinogenicity

Carcinogenicity In studies where kaolin has been administered via intratracheal installation, kaolin behaves as a poorly soluble particulate of low toxicity with inflammatory responses of lung tissue. Epidemiological studies covering a large number of workers did not reveal an explicit association between kaolin exposure and tumour formation. In summary, no concern on carcinogenicity is triggered by animal studies or by epidemiological findings

Reproductive toxicity

Reproductive toxicity - fertility No specific test data are available.

Specific target organ toxicity - single exposure

STOT - single exposure No organ toxicity observed in acute tests.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on the results from animal studies (mainly via intratracheal administration) it seems that the severity of effects seen in the lungs may be related to the level of crystalline silica (fine fraction) present in the material as an accessory mineral. Epidemiological studies show that exposure to high levels of kaolin dust may lead to pneumoconiosis. Results indicate that the effects from kaolin exposure are typical of those seen with poorly soluble particles under conditions of lung overload i.e. the lungs clearance capacity has been exceeded. It is likely that the severity of any effects are related to the level of crystalline silica (fine fraction) present in the material as an accessory mineral.

Aspiration hazard

Aspiration hazard No specific test data are available.

SECTION 12: Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Ecological information on ingredients.

KAOLIN

Grolleg™ Lump

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: >1000 mg/l, Oncorhynchus mykiss (Rainbow trout) OECD 203
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >1000 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	EC_{50}, 72 hours: >1000 mg/l, Freshwater algae OECD 201
Acute toxicity - microorganisms	No specific test data are available.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage	No specific test data are available.
Chronic toxicity - aquatic invertebrates	No specific test data are available.
Toxicity to soil	No specific test data are available.
Toxicity to terrestrial plants	No specific test data are available.

12.2. Persistence and degradability

Persistence and degradability The product is not biodegradable.

Ecological information on ingredients.

KAOLIN

Persistence and degradability	The substance is inorganic and therefore will not undergo abiotic degradation.
Biodegradation	The substance is inorganic and therefore will not undergo biodegradation.

12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient Not applicable (inorganic substance)

Ecological information on ingredients.

KAOLIN

Bioaccumulative potential	Not relevant for inorganic substances.
Partition coefficient	Not applicable (inorganic substance)

12.4. Mobility in soil

Mobility The product is insoluble in water.

Ecological information on ingredients.

KAOLIN

Mobility	Kaolin is almost insoluble and thus presents a low mobility in most soils.

12.5. Results of PBT and vPvB assessment

Grolleg™ Lump

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current UK criteria.

Ecological information on ingredients.

KAOLIN

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current UK criteria.

12.6. Other adverse effects

Other adverse effects None known.

Endocrine disrupting properties Available data for the substance have been considered against the criteria laid down in Regulations ((EC) No 1907/2006, (EU) 2017/2100, (EU) 2018/605) and found not to apply.

Ecological information on ingredients.

KAOLIN

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information This mineral can be disposed of as a non toxic/inactive material in approved landfill sites in accordance with local regulations. Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles. Recycling and disposal of packaging should be carried out in compliance with local regulations. The re-use of packaging is not recommended. Recycling and disposal of packaging should be carried out by an authorised waste management company. Comply with local regulations for disposal

Disposal methods Where possible, recycling is preferable to disposal. Can be disposed of in compliance with local regulations.

SECTION 14: Transport information

General The material is not classified as a dangerous substance and no restrictions apply for land/sea/air transportation (IMDG, IATA, ADR/RID). Avoid generation and spreading of dust.

14.1. UN number

Kaolin is not classified as hazardous for transport and does not have a UN Number

14.2. UN proper shipping name

No information required.

14.3. Transport hazard class(es)

ADR, IMDG, ICAO/IATA, RID : All not classified

14.4. Packing group

No information required.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Grolleg™ Lump

Avoid any release of dust during transportation, by using air-tight tanks for powders and covered trucks for other dry forms.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required.

SECTION 15: Regulatory information

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

National regulations EH40/2005 Workplace exposure limits.
Health and Safety at Work etc. Act 1974 (as amended).
The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

EU legislation Exempted in accordance with REACH Annex V.7

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service.
EC: European Commission
EC_{50}: 50% of maximal Effective Concentration.
FFP: Filtering Face Piece
IMDG: International Maritime Dangerous Goods.
IATA: International Air Transport Association.
LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).
OECD: Organisation for Economic Co-operation and Development
OEL: Occupational Exposure Limit
PBT: Persistent, Bioaccumulative and Toxic substance.
REACH: The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
SDS: Safety Data Sheet
TWA: Time Weighted Average
UVCB - Unknown or variable composition, complex reaction products or Biological materials.
vPvB: Very Persistent and Very Bioaccumulative.

Grolleg™ Lump

General information

Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations. A multi-sectoral social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it was signed on 25 April 2006. This autonomous agreement, which receives the European Commission's financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25 October 2006. The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from http://www.nepsi.eu and provide useful information and guidance for the handling of products containing crystalline silica (fine fraction). Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers. Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In 2009, in the Monographs 100 series, IARC confirmed its classification of Silica Dust, Crystalline, in the form of Quartz and Cristobalite (IARC Monographs, Volume 100C, 2012). In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk…" (SCOEL SUM Doc 94-final, June 2003). So there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional risk management measures where required. Health & Safety Executive: Detailed reviews of the scientific evidence on the health effects of crystalline silica have been published by HSE (Health and Safety Executive, UK) in the Hazard Assessment Documents EH75/4 (2002) and EH75/5 (2003). The HSE points out on its website that "Workers exposed to fine dust containing quartz are at risk of developing a chronic and possibly severely disabling lung disease known as "silicosis"." In addition to silicosis, there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis.

Revision comments

Most of the 16 SECTIONS have been updated and formatted according to the revised ECHA Guidance on the compilation of safety data sheets (version 3.0 of August 2015). Therefore, this SDS has been completely redrafted and replaces the former SDS supplied.

Revision date

10/08/2022

Revision

9

SDS number

10964

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.