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

1.1 Product identifier

Mixture between	Quartz, Barium sulphate, Calcium carbonate and Dolomite flour, treated glass beads (in various formation)
Main component:	Quartz
CAS-Nr.:	14808-60-7
Exempted in accordance with Annex V.7:	Quartz, Barium sulphate, Calcium carbonate and Dolomite flour, treated glass beads
Chemical name/synonym:	Quartz SiO_2, $BaSO_4$, $CaCO_3$, $CaCO_3$*$MgCO_3$, glass beads
Trade names:	Company name of customer in combination with different numerical codes (e.g. Füllstoff SL, K1, K2, VP16, F 332 ...)
1.2 Relevant identified uses of the substance or mixture and uses advised against	Filler for industrial floor coatings
1.3 Details of the supplier of the safety data sheet	ISG Industriesteingesellschaft mbH Scharhof 1 D-92242 Hirschau
Phone N°	+49 9622 82-0
Fax N°	+49 9622 82-206
Responsible person for SDS:	Johann Scherer
E-mail:	info@dorfner.com
1.4 Emergency telephone number	+49 9622 820 (during office hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

ISG DORSIMIX doesn't meet the criteria for classification as hazardous as defined in the Regulation EC 1272/2008.

Depending on the type of handling and use (e.g. grinding), airborne fine fraction crystalline silica may be generated. Prolonged and/or massive inhalation of fine fraction of crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to fine fraction of crystalline silica dust should be monitored and controlled.

Regulation (EG) 1272/2008: **No classification**

2.2 Label elements

No classification

Signal word: **No classification**

2.3 Other hazards

This product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

SECTION 3: Composition/Information on ingredients

Composition

Name	quantity wt.-%	CAS-No.	EC-No.	Regulation EC 1272/2008	REACH- Registration-No.
Quartz	30 - 100	14808-60-7	238-878-4	None	Exempted in accordance with Annex V.7
Barium sulphate	0 - 70	7727-43-7	236-664-5	None	Exempted in accordance with Annex V.7
Calcium carbonate	0 - 30	1317-65-3	215-279-6	None	Exempted in accordance with Annex V.7
Dolomite flour	0 - 100	16389-88-1	240-44-02	None	Exempted in accordance with Annex V.7
Treated glass beads	0 - 20	65997-17-3	266-046-0	None	Exempted in accordance with Annex V.7

Impurities: This product contains less than 1% quartz (fine fraction).

SECTION 4: First aid measures

4.1 Description of first aid measures

eye contact: Don't chafe for avoiding damage of cornea. If necessary remove contact lenses. Rinse with copious quantities of water. If available, use isotonic flushing solution (0.9 wt.-% Sodium chloride). If irritation persists seek medical attention.

inhalation: Movement of the exposed individual from the area to fresh air is recommended.

ingestion: No first-aid measure required.

skin contact: Wash with soap and water.

No special first aid measures necessary.

4.2 Most important symptoms and effects, both acute an delayed: Prolonged and/or massive exposure to fine fraction of crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine fraction particles of crystalline silica.

4.3 Indication of any immediate medical attention and special treatment needed: Remove to fresh air and get medical attention in case of serious respiratory problems.

SECTION 5: Firefighting measures

No specific extinguishing media is needed.

5.1 Extinguishing media

5.2 Special hazards arising from the substance or mixture: Non combustible. No hazardous thermal decomposition. No specific fire-fighting protection is required. If mixtures with Calcium carbonate or dolomite flour are heated above approx. 600°C, elimination of CO_2 is started. At very high temperatures from mixtures with $BaSO_4$ is generated SO_x. Use an extinguishing agent suitable for the surrounding fire.

5.3 Advice for firefighters: No specific fire-fighting protection is required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	Avoid airborne dust generation. Wear personal protective equipment in heavily dusted areas in compliance with national legislation, e.g. EN 149. Use of gloves according to EN 374 is recommended.
6.2 Environmental precautions	No special requirements.
6.3 methods and material for containment and cleaning up	Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation.
6.4 Reference to other sections	See section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling	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, e.g. EN 149. Handle packaged product carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier or check the Good Practice Guide referred to in section 16.
7.2 Conditions for safe storage, including any incompatibilities	**Technical measures/precautions:** Minimize airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting. ISG DORSIMIX is storable max. 1 year under suitable storing conditions. Due to the stability of the packaging (paper bags) we recommend to store 6 month at maximum.
7.3 Specific end use(s)	If you require advice on specific uses, please contact your supplier or check the Good Practice Guide referred to in section 16.

SECTION 8: Exposure controls / personal protection

8.1 Control parameters	Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, fine fraction dust, fine fraction crystalline silica dust). OEL (Occupational Exposure List) for fine fraction of silica dust see Annex to this safety data sheet. OEL is measure as an 8 hour TWA (Time Weighted Average). For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority.

8.2 Exposure controls

8.2.1 Appropriate engineering controls	Minimize 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 organizational measures, e.g. by isolating personal from dusty areas. Remove and wash soiled clothing.

8.2.2. Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries according to EN 166.
Skin protection	No specific requirement. For hands, see below. Appropriate protection (e.g. protective clothing, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin.

Hand protection	Appropriate protection [e.g. gloves according to EN 374 or nitrile impregnated cotton gloves according to specification EN 374, barrier cream] is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session.
Respiratory protection	In case of prolonged exposure to airborne dust concentrations, wear respiratory protective equipment that complies with the requirements of European or national legislation.

8.2.3 Environmental exposure controls Avoid wind dispersal.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance / color	Solid (granular), grey
Odour	Odourless
Odour threshold	Not relevant
pH-value	Approx. 6-8
Melting point/freezing point	Not relevant, >600°C
Boiling point and boiling range	Not relevant
Flash point	Not relevant
Explosive properties	Not relevant
Vapor pressure	Not relevant
Steam-tight	Not relevant
Specific gravity	Approx. 2.6 - 3.6 g/mL
Solubility(ies)	Solubility in water: negligible
	Solubility in hydrofluoric acid: yes
9.2 Other information	No other information

SECTION 10: Stability and reactivity

10.1 reactivity	ISG DORSIMIX is inert and not reactive.
10.2 chemical stability	ISG DORSIMIX is stable under dry storing conditions. Calcium carbonate or dolomite containing types are unstable against acids.
10.3 Possibility of hazardous reactions	No hazardous reactions.
10.4 Conditions to avoid	Avoid contact with acids and calcium carbonate or dolomite containing types.
10.5 Incompatible materials	No incompatible materials known in regular use of ISG DORSIMIX.
10.6 Hazardous decomposition products	No hazardous decomposition products in regular use.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.

Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT - single exposure	This product contains less than 1% quartz (fine fraction– may cause respiratory tract irritation).
STOT - repeated exposure	Based on available data, the classification criteria are not met.

Prolonged and/or massive exposure to fine fraction of crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine fine fraction 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 June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of fine fraction of 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 (see section 16 below).

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

SECTION 12: Ecological Information

	Quartz is a natural mineral and widely spread on earth and is nontoxic to aquatic organism and could be separated from waste water by settlement.
12.1 Toxicity	Not relevant
12.2 Persistence and degradability	Not relevant
12.3 Cioaccumulative potential	Not relevant
12.4 Mobility in soil	Negligible
12.5 Results of pbt an vpvb assessment	Not relevant
12.6 Other adverse effects	No specific injurious effects are known. However, this doesn't exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products	Where possible, recycling is preferable to disposal. Can be disposed of in compliance with local regulations. This material is not classified as hazardous waste according to Commission Decisions 2000/532/EC and 2001/118/EC. Waste code: depending on origin, 01 04 10 Waste designation: 01 04 10: dusty and powdery wastes
Packaging	Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in closed receptacles. Recycling and disposal of packaging should be carried out in compliance with local regulations.

SECTION 14: Transport information

14.1 UN-Number	Not relevant
14.2 Unproper shipping name	Not relevant
14.3 Transport hazard class(es)	ADR: not classified IMDG: not classified ICAO/IATA: not classified RID: not classified
14.4 Packing group	Not relevant
14.5 Environmental hazards	Not relevant
14.6 Special precautions for user	No special precautions
14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC code	Not relevant

SECTION 15: Regulatory information

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

National regulation:

Water hazard classification	None
International legislation / regulation:	none
15.2 Chemical safety assessment	Exempted from REACH Registration in accordance with Annex V.7.

SECTION 16: Other information

Information on revision data sheet	This safety data sheet is revised according to regulation (EC) 453/2010.
Hazard code of components in section 3	None
Training	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.
Social Dialogue on fine fraction (Fine fraction Crystalline Silica)	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 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 fine fraction of crystalline silica. Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers.

Third party material
Insofar as materials not manufactured or supplied by Gebr. Dorfner are used in conjunction with, or instead of Gebr. Dorfner materials, it is the responsibility of the customer himself to obtain, from the manufacturer or supplier, all technical data and other properties relating to these or other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of Gebr. Dorfner's products in conjunction with materials from another supplier.

Liability
The information describes exclusively the safety requirements for the product (s) and is based on the present level or our knowledge. This data does not constitute a guarantee for the characteristics of the product (s) as defined by the legal warranty regulations. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. No liability can be accepted in respect of the use of our product (s) in conjunction with materials from another supplier.

Attachment

Occupational Exposure Limits in mg/m3 8 hours TWA – Fine fraction dust – in EU 27[1] + Norway & Switzerland

Country/ Authority (see next page)	Non specified (inert) dust	Quartz	Cristobalite	Tridymite	Diatomaceous earth	Amorphous silica	Fused silica	Kaolin	Mica	Talc
Czech Republic/IV		0,1	0,1	0,1					2	2
Cyprus/V	/	10k/Q2	/	/	/	2	/	/	/	/
Denmark/VI	5	0,1	0,05	0,05	1,5		0,1	2		
Estonia		0,1	0,05	0,05		2				
Finland/VII	/	0,2	0,1	0,1	5					5
France/VIII		5 or 25k/Q								
France/IX	5	0,1	0,05	0,05				10		
Germany/X	3	/[3]	/	/			0,3			2
Greece/XI	5	0,1	0,05	0,05						2
Hungary		0,15	0,1	0,15						2
Ireland/XII	4	0.05	0.05	0.05		2,4	0,08	2	0,8	0,8
Italy/XIII	3	0,025	0,025	0,025			0,1	2	3	2
Lithuania/XIV	10	0,1	0,05	0.05						1
Luxembourg/XV	6	0,15	0,15	0,15			0,3			2
Malta4/XVI		/	/	/	/					
Netherlands/XVII	5	0,075	0,075	0,075				10	2,5	0,25
Norway/XVIII	5	0,1	0,05	0,05	1,5	1,5			3	2
Poland		0,3	0,3	0,3	2		1			1
Portugal/XIX	5	0,025	0,025	0,025			0,1	2	3	2
Romania/XX	10	0,1	0,05	0,05				2	3	2
Slovakia		0,1	0,1	0,1		2			2	2
Slovenia		0,15	0,15	0,15			0,3			2
Spain/XXI	3	0,1	0,05	0,05			0,1	2	3	2
Sweden/XXII	5	0,1	0,05	0,05						1
Switzerland/XXIII	6	0,15	0,15	0,15		0,3	0,3	3	3	2
UK/XXIV	4	0,1	0,1	0,1	1,2	2,4	0,08	2	0,8	1

1 Missing information for Latvia – To be completed.
2 Q : quartz percentage – K=1
3 Germany has no more OEL for quartz, cristobalite and tridymite. Employers are obliged to minimize exposure as much as possible, and to follow certain protective measures.
4 When needed, Maltese authorities refer to values from the UK for OELVs which do not exist in the Maltese legislation.

Country Adopted by/Law denomination OEL Name (if specific)

Austria I Bundesministerium für Arbeit und Soziales Maximale Arbeitsplatz Koncentration (MAK)

Belgium II Ministère de l'Emploi et du Travail

Bulgaria III Ministry of Labour and Social Policy and Ministry of Health. Ordinance n°13 of 30/12/2003 Limit Values

Cyprus IV Department of Labour Inspection. Control of factory atmosphere and dangerous substances in factories, Regulations of 1981.

Czech Republic V Governmental Directive n°441/2004

Denmark VI Direktoratet fot Arbeidstilsynet Threshold Limit Value (TLV)

Finland VII National Board of Labour Protection Occupational Exposure Standard

France VIII Ministère de l'Industrie (RGIE) Empoussiérage de référence

IX Ministère du Travail Valeur limite de Moyenne d'Exposition

Germany X Bundesministerium für Arbeit Maximale Arbeitsplatz Koncentration (MAK)

Greece XI Legislation for mining activities

Ireland XII 2002 Code of Practice for the Safety, Health & Welfare at Work (CoP)

Italy XIII Associazone Italiana Degli Igienisti Industriali Threshold Limit Values (based on ACGIH TLVs)

Lithuania XIV Dėl Lietuvos higienos normos HN 23:2001 Ilgalaikio poveikio ribinė vertė (IPRV)

Luxembourg XV Bundesministerium für Arbeit; Maximale Arbeitsplatz Koncentration (MAK)

Malta XVI OHSA – LN120 of 2003, www.ohsa.org.mt OELVs

Netherlands XVII Ministerie van Sociale Zaken en Werkgelegenheid Publieke grenswaarden
http://www.ser.nl/en/oel_database.aspx

Norway XVIII Direktoratet for Arbeidstilsynet Administrative Normer (8hTWA) for Forurensing I ArbeidsmiljØet

Portugal XIX Instituto Portuges da Qualidade, Hygiene & Safety at Workplace
NP1796:2007
Valores Limite de Exposição (VLE)

Romania XX Government Decision n° 355/2007 regarding workers' health surveillance. Government Decision n° 1093/2006 regarding carcinogenic agents (in Annex 3: Quartz, Cristobalite, Tridymite). OEL

Spain XXI Instrucciones de Técnicas Complementarias (ITC)
Orden ITC/2585/2007
Valores Limites

Sweden XXII National Board of Occupational Safety and Health Yrkeshygieniska Gränsvärden

Switzerland XXIII Valeur limite de Moyenne d'Exposition

United Kingdom

XXIV Health & Safety Executive Workplace Exposure Limits (WEL)

Source: IMA-Europe. Date: May 2010, updated version available at http://www.ima-europe.eu/otherPublications.html