	STOT RE 1 (quartz fine fraction ≥ 10 %)	STOT RE 2 (1% < quartz fine fraction < 10 %)	Without classification (quartz fine fraction < 1 %)
	Company Name	Company Name	Company Name
	, ,	1 7	1 2
	Safety Data Sheet (in compliance with Regulation		Safety Data Sheet (in compliance with Regulation (EC)
	(EC) 1907/2006 and Regulation (EC) 1272/2008) and	(EC) 1907/2006 and Regulation (EC) 1272/2008) and	1907/2006 and Regulation (EC) 1272/2008) and
	Regulation (EC) 453/2010)	Regulation (EC) 453/2010)	Regulation (EC) 453/2010)
	QUARTZ	QUARTZ	QUARTZ
	Version xxx	Version xxx	Version xxx
	Revision date:	Revision date:	Revision date:
	June 2015	June 2015	June 2015
Section 1.	IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING	IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING	IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING
1.1.	Product identifier	Product identifier	Product identifier
	Substance name	Substance name	Substance name
	Quartz*	Quartz*	Quartz*
	Synonyms:	Synonyms:	Synonyms:
	Silica flour, crystalline silica flour, silicon dioxide flour, Quartz	Silica xxx, crystalline silica xxx, silicon dioxide xxx, Quartz	Silica sand, crystalline silica sand, silicon dioxide, Quartz sand,
		sand, Quartzite	Quartzite
	Chemical name and formula	Chemical name and formula	Chemical name and formula
	SiO2	SiO2	SiO2
	Trade names:	Trade names:	Trade names:
	To be completed by the company tradename as on the label	To be completed by the company tradename as on the label	To be completed by the company tradename as on the label
	CAS	CAS	CAS
	14808-60-7	14808-60-7	14808-60-7
	EINECS	EINECS	EINECS
	238-878-4	238-878-4	238-878-4
	REACH Registr. n°:	REACH Registr. n°:	REACH Registr. n°:
	Exempted in accordance with Annex V.7	Exempted in accordance with Annex V.7	Exempted in accordance with Annex V.7
	Examples in accordance with runley v.r	Exemples in assertation with runles 1.7	Examples in accordance with runlex 1.7
1.2.		Relevant identified uses of the substance or mixture and	Relevant identified uses of the substance or mixture and uses
	against	uses advised against	advised against
	Main applications (non exhaustive list): paint, ceramics, glass	Main applications (non exhaustive list): paint, ceramics, glass	Main applications (non exhaustive list): paint, ceramics, glass fibre,
	fibre, adhesives, plastics, rubber sealants, special concrete,	fibre, adhesives, plastics, rubber sealants, special concrete,	adhesives, plastics, rubber sealants, special concrete, manufacture
	manufacture of silicon, ferrosilicon and ironoxide pellets.	manufacture of silicon, ferrosilicon and ironoxide pellets.	of silicon, ferrosilicon and ironoxide pellets. Additive in production of
	Additive in production of cement and concrete. Fluxing material.		cement and concrete. Fluxing material.
	Uses advised against	Uses advised against	Uses advised against
	No use identified in Section 1.2. is advised against	No use identified in Section 1.2. is advised against	No use identified in Section 1.2. is advised against
1.3.	Details of the supplier of the safety data sheet	Details of the supplier of the safety data sheet	Details of the supplier of the safety data sheet
1.5.	[entity within EU]	[entity within EU]	fentity within EU)
	[Gridly within EO)		[[endity within LO]
	Company name	Company name	Company name
	Address	Address	Address
	Phone N°	Phone N° Fax N°	Phone N° Fax N°
	Fax N°	FdX IV	rax IV

	T	T	
	E-mail of competent person responsible for SDS in the Member State or in the EU:	E-mail of competent person responsible for SDS in the Member State or in the EU:	E-mail of competent person responsible for SDS in the Member State or in the EU:
	To be completed by the company	To be completed by the company	To be completed by the company
1.4.	Emergency telephone number	Emergency telephone number	Emergency telephone number
	112	112	112
	National centre for Prevention and Treatment of	National centre for Prevention and Treatment of	National centre for Prevention and Treatment of Intoxications N°:
	Intoxications N°:	Intoxications N°:	
	To be completed (See national emergency telephone numbers	To be completed (See national emergency telephone numbers	To be completed (See national emergency telephone numbers at
	at http://echa.europa.eu/web/guest/support/helpdesks/national-	at http://echa.europa.eu/web/guest/support/helpdesks/national-	http://echa.europa.eu/web/guest/support/helpdesks/national-
	helpdesks/list-of-national-helpdesks)	helpdesks/list-of-national-helpdesks)	helpdesks/list-of-national-helpdesks)
	Emergency telephone at the company	Emergency telephone at the company	Emergency telephone at the company
	To be completed by the company	To be completed by the company	To be completed by the company
	Available outside office hours:	Available outside office hours:	Available outside office hours:
	Yes / No	Yes / No	Yes / No
	Other information (e.g. language of the phone service)	Other information (e.g. language of the phone service)	Other information (e.g. language of the phone service)
	To be completed by the company	To be completed by the company	To be completed by the company
Section 2	HAZARDS IDENTIFICATION	HAZARD IDENTIFICATION	HAZARD IDENTIFICATION
2.1.	Classification of the substance or mixture	Classification of the substance or mixture	Classification of the substance or mixture
2.1.1.	Classification according to Regulation EC 1272/2008:	Classification according to Regulation EC 1272/2008:	Classification according to Regulation EC 1272/2008:
	STOT RE 1 , H 372	STOT RE 2 , H 373	No classification
	Additional information	Additional information	1 to diagonibation
	For full texts of H-statements: see Section 16	For full texts of H-statements: see Section 16	
	101 Tuli texts of 11 statements: see section 10	1 of full texts of 11 statements, see section 10	
2.2.	Label elements	Label elements	Label elements
2.2.1.	Labelling according to Regulation EC 1272/2008:	Labelling according to Regulation EC 1272/2008:	Labelling according to Regulation EC 1272/2008:
	Hazard pictogram:	Hazard pictogram:	No classification
	Signal Word:	Signal Word:	
	DANGER	WARNING	
	Hazard statement:	Hazard statement:	
	H 372, causes damage to lung through prolonged or repeated	H 373, may cause damage to lung through prolonged or	
	exposure by inhalation.	repeated exposure by inhalation.	
	Precautionary statements:	Precautionary statements:	
	P260: do not breathe dust	P260: do not breathe dust	
	P501: Dispose of contents/containers in accordance with local regulation	P501: Dispose of contents/containers in accordance with local regulation	
	In case of inadequate ventilation wear respiratory protection.	In case of inadequate ventilation wear respiratory protection.	
	1995 S. Massagado Formadori Hodi Toopiidtory protection.	in the state of management and respiratory protection.	
2.3.	Other hazards	Other hazards	Other hazards
	This product is an inorganic substance and does not meet the	This product is an inorganic substance and does not meet the	This product is an inorganic substance and does not meet the criteria
1	criteria for PBT or vPvB in accordance with Annex XIII of	criteria for PBT or vPvB in accordance with Annex XIII of	for PBT or vPvB in accordance with Annex XIII of REACH
	REACH	REACH	
	No other hazard identified	No other hazard identified	No other hazard identified
Section 3.	COMPOSITION / INFORMATION ON INGREDIENTS	COMPOSITION / INFORMATION ON INGREDIENTS	COMPOSITION / INFORMATION ON INGREDIENTS
	Main constituent	Main constituent	Main constituent
i e			

	Quartz	Quartz	Quartz
	Amount:	Amount:	Amount:
	SiO2 > 98%	SiO2 > 98%	SiO2 > 98%
	EINECS:	EINECS:	EINECS:
	238-878-4	238-878-4	238-878-4
	CAS:	CAS:	CAS:
	14808-60-7	14808-60-7	14808-60-7
	Impurities	Impurities	Impurities
	This product contains more than 10% of quartz (fine fraction), which is classified as STOT RE1.	This product contains between 1 and 10% of quartz (fine fraction), which is classified as STOT RE1.	None
Section 4.	FIRST AID MEASURES	FIRST AID MEASURES	FIRST AID MEASURES
4.1.	Description of first aid measures	Description of first aid measures	Description of first aid measures
	1	Following eye contact:	Following eye contact:
	Rinse with copious quantities of water and seek medical	Rinse with copious quantities of water and seek medical	Rinse with copious quantities of water and seek medical attention if
	attention if irritation persists	attention if irritation persists	irritation persists
		Following inhalation:	Following inhalation:
	Movement of the exposed individual from the area to fresh air is		
	recommended.	recommended.	recommended.
4.2.	Most important symptoms and effects both acute and	Most important symptoms and effects both acute and	Most important symptoms and effects both acute and delayed
	delayed	delayed	
		No acute and delayed symptoms and effects are observed	No acute and delayed symptoms and effects are observed
4.3.		Indication of any immediate medical attention and special	Indication of any immediate medical attention and special
	treatment needed	treatment needed	treatment needed
	No specific actions are required	No specific actions are required	No specific actions are required
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		- special control of
Section 5.	FIRE-FIGHTING MEASURES	FIRE-FIGHTING MEASURES	FIRE-FIGHTING MEASURES
5.1.	Extinguishing media	Extinguishing media	Extinguishing media
5.1.1.	Suitable extinguishing media	Suitable extinguishing media	Suitable extinguishing media
		No specific extinguishing media is needed	No specific extinguishing media is needed
5.1.2.	Unsuitable extinguishing media	Unsuitable extinguishing media	Unsuitable extinguishing media
_	ů ů	No restriction on the extinguishing media to be used	No restriction on the extinguishing media to be used
	The resultation of the Samily anothing module to be used	The resultation are the saming media to be deed	The rection of the example of the second
5.2.	Special hazards arising from the substance or mixture	Special hazards arising from the substance or mixture	Special hazards arising from the substance or mixture
<u> </u>		Non combustible. No hazardous thermal decomposition.	Non combustible. No hazardous thermal decomposition.
5.3.	Advice for firefighters	Advice for firefighters	Advice for firefighters
5.5.	No specific fire-fighting protection is required.	No specific fire-fighting protection is required.	No specific fire-fighting protection is required.
	The appearing me highling protection to required.	Tro opedine me nghang protection to required.	Tro opeoine me ngriting protection to required.
Section 6.	ACCIDENTAL RELEASE MEASURES	ACCIDENTAL RELEASE MEASURES	ACCIDENTAL RELEASE MEASURES
6.1.	Personal precautions, protective equipment and emergency		Personal precautions, protective equipment and emergency
		emergency procedures	procedures
	Avoid airborne dust generation, wear respiratory personal	Avoid airborne dust generation, wear respiratory personal	Avoid airborne dust generation, wear respiratory personal protective
	protective equipment in compliance with national legislation, see		equipment in compliance with national legislation, see EN 143: 2000.
	EN 143: 2000.	see EN 143: 2000.	
		**	
6.2.	Environmental precautions	Environmental precautions	Environmental precautions
		No special requirements.	No special requirements.
	The openion of an original ori	re oposia. requiremente.	pro openia regularita.
6.3.	Methods and material for containment and cleaning up	Methods and material for containment and cleaning up	Methods and material for containment and cleaning up
U.J.	Methods and material for containment and cleaning up	Methods and material for containment and cleaning up	Methods and material for containment and cleaning up

	Avoid dry avecasing and use water enroving as year up alconing	Avaid day avecasing and use water enveying ar veguing aloning	Avaid day oversing and use water enveying ary course alonging
	Avoid dry sweeping and use water spraying or vacuum cleaning systems (with high-efficiency particulate air filter) to prevent	systems (with high-efficiency particulate air filter) to prevent	systems (with high-efficiency particulate air filter) to prevent airborne
	airborne dust generation. Wear personal protective equipment in		dust generation. Wear personal protective equipment in compliance
	compliance with national legislation.	in compliance with national legislation.	with national legislation.
6.4.	Reference to other sections	Reference to other sections	Reference to other sections
	See sections 8 and 13	See sections 8 and 13	See sections 8 and 13
Section 7.	HANDLING AND STORAGE	HANDLING AND STORAGE	HANDLING AND STORAGE
7.1.	Precautions for safe handling	Precautions for safe handling	Precautions for safe handling
7.1.1.	Protective measures	Protective measures	Protective measures
7.1.1.		Avoid airborne dust generation. Provide appropriate exhaust	Avoid airborne dust generation. Provide appropriate exhaust
	ventilation at places where airborne dust is generated. Other	ventilation at places where airborne dust is generated. Other	ventilation at places where airborne dust is generated. Other suitable
	suitable controls may include enclosure, isolation, water	suitable controls may include enclosure, isolation, water	controls may include enclosure, isolation, water suppression,
	suppression, respiratory protective equipment. Handle	suppression, respiratory protective equipment. Handle	respiratory protective equipment. Handle packaged products carefully
	packaged products carefully to prevent accidental bursting. If	packaged products carefully to prevent accidental bursting. If	to prevent accidental bursting. If you require advice on safe handling
	you require advice on safe handling techniques, please contact	you require advice on safe handling techniques, please contact	techniques, please contact your supplier or check the Good Practice
	your supplier or check the Good Practice Guide referred to in	your supplier or check the Good Practice Guide referred to in	Guide referred to in section 16.
	section 16.	section 16.	
7.1.2.	Advice on general occupational hygiene	Advice on general occupational hygiene	Advice on general occupational hygiene
	Do not to eat, drink and smoke in work areas; wash hands after	Do not to eat, drink and smoke in work areas; wash hands after	Do not to eat, drink and smoke in work areas; wash hands after use;
	use; remove contaminated clothing and protective equipment	use; remove contaminated clothing and protective equipment	remove contaminated clothing and protective equipment before
	before entering eating areas. Shower and change clothes at end	before entering eating areas. Shower and change clothes at end	entering eating areas. Shower and change clothes at end of work
	of work shift.	of work shift.	shift.
7.2.	Conditions for safe storage, including any incompatibilities	Conditions for safe storage, including any incompatibilities	Conditions for safe storage, including any incompatibilities
		Technical measures / Precautions	Technical measures / Precautions
	Minimise airborne dust generation and prevent wind dispersal	Minimise airborne dust generation and prevent wind dispersal	Minimise airborne dust generation and prevent wind dispersal during
	during loading and unloading. Keep containers closed and store	during loading and unloading. Keep containers closed and store	loading and unloading. Keep containers closed and store packaged
	packaged products so as to prevent accidental bursting.	packaged products so as to prevent accidental bursting.	products so as to prevent accidental bursting.
7.3.	Specific end use(s)	Specific end use(s)	Specific end use(s)
	If you require advice on specific uses, please contact your	If you require advice on encoific upon places contact your	If you require advice on specific uses, please contact your supplier or
	supplier or check the Good Practice Guide referred to in section	If you require advice on specific uses, please contact your supplier or check the Good Practice Guide referred to in section	
	16.	16.	check the dood i ractice duide referred to in section 10.
		10.	
Section 8.	EXPOSURE CONTROLS / PERSONAL PROTECTION	EXPOSURE CONTROLS / PERSONAL PROTECTION	EXPOSURE CONTROLS / PERSONAL PROTECTION
8.1.	Control parameters	Control parameters	Control parameters
	Follow workplace regulatory exposure limits for all types of	Follow workplace regulatory exposure limits for all types of	Follow workplace regulatory exposure limits for all types of airborne
	airborne dust (e.g. total dust, respirable dust, respirable quartz,	airborne dust (e.g. total dust, respirable dust, respirable quartz,	dust (e.g. total dust, respirable dust, respirable quartz, respirable
	respirable cristobalite).	respirable cristobalite).	cristobalite).
	The OCL (Occupational Cynegure Limit) for yearing his annual limit	The OFL (Occupational Evaceure Limit) for year in-li-	The OFL (Occupational Expective Limit) for receivable and the
	The OEL (Occupational Exposure Limit) for respirable crystalline		The OEL (Occupational Exposure Limit) for respirable crystalline
	, ,	•	silica dust is xxx mg/m³ in <i>country</i> , measured as an 8 hour TWA
	(Time Weighted Average). For the equivalent limits in other countries, please consult a competent occupational hygienist or	hour TWA (Time Weighted Average). For the equivalent limits in other countries, please consult a competent occupational	(Time Weighted Average). For the equivalent limits in other
	the local regulatory authority.	hygienist or the local regulatory authority.	countries, please consult a competent occupational hygienist or the local regulatory authority.
	the local regulatory authority.	myglenist of the local regulatory authority.	local regulatory authority.

	A.E	IA E Piuliu OEL (Our unit unit E unit in it	IA E Piuliu OEL (Our sulius IE suliusi) (
	A European Binding OEL (Occupational Exposure Limit) for	A European Binding OEL (Occupational Exposure Limit) for	A European Binding OEL (Occupational Exposure Limit) for
	respirable crystalline silica dust is set at 0.1 mg/m³ in the	respirable crystalline silica dust is set at 0.1 mg/m³ in the	respirable crystalline silica dust is set at 0.1 mg/m³ in the Directive
	Directive (EU) 2017/2398, measured as an 8-hour TWA (Time	Directive (EU) 2017/2398, measured as an 8-hour TWA (Time	(EU) 2017/2398, measured as an 8-hour TWA (Time Weighted
	Weighted Average).	Weighted Average).	Average).
8.2.	Exposure controls	Exposure controls	Exposure controls
8.2.1.	Appropriate engineering controls:	Appropriate engineering controls:	Appropriate engineering controls:
	- The second sec	, pp. sp. sp. sp. sp. sp. sp. sp. sp. sp.	, pp. 11.
	Minimise airborne dust generation. Use process enclosures,	Minimise airborne dust generation. Use process enclosures,	Minimise airborne dust generation. Use process enclosures, local
	local exhaust ventilation or other engineering controls to keep	local exhaust ventilation or other engineering controls to keep	exhaust ventilation or other engineering controls to keep airborne
	airborne levels below specified exposure limits. If user	airborne levels below specified exposure limits. If user	levels below specified exposure limits. If user operations generate
	operations generate dust, fumes or mist, use ventilation to keep	operations generate dust, fumes or mist, use ventilation to keep	dust, fumes or mist, use ventilation to keep exposure to airborne
	exposure to airborne particles below the exposure limit. Apply	exposure to airborne particles below the exposure limit. Apply	particles below the exposure limit. Apply organisational measures,
	organisational measures, e.g. by isolating personnel from dusty	organisational measures, e.g. by isolating personnel from dusty	e.g. by isolating personnel from dusty areas. Remove and wash
	areas. Remove and wash soiled clothing.	areas. Remove and wash soiled clothing.	soiled clothing.
0.00	ladicideal material materials	Individual nyotastian massures and as payaged	Individual protection management and a narround protective
8.2.2.	Individual protection measures, such as personal protective	Individual protection measures, such as personal protective equipment:	Individual protection measures, such as personal protective equipment:
8.2.2.1.	equipment: Eye protection	Eye protection	Eye protection
0.2.2.1.	Wear safety glasses with side-shields in circumstances where	Wear safety glasses with side-shields in circumstances where	Wear safety glasses with side-shields in circumstances where there
	there is a risk of penetrative eye injuries.	there is a risk of penetrative eye injuries.	is a risk of penetrative eye injuries.
8.2.2.2.	Skin protection	Skin protection	Skin protection
0.2.2.2.	No specific requirement. For hands, see below.	No specific requirement. For hands, see below.	No specific requirement. For hands, see below.
	Hand protection	Hand protection	Hand protection
		,	
	Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or	Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or	Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands
l	sensitive skin. Wash hands at the end of each work session.	sensitive skin. Wash hands at the end of each work session.	at the end of each work session.
0.0.0			
8.2.2.3.	Respiratory protection	Respiratory protection	Respiratory protection
	In case of prolonged exposure to airborne dust concentrations,	In case of prolonged exposure to airborne dust concentrations,	In case of prolonged exposure to airborne dust concentrations, wear
	wear a respiratory protective equipment that complies with the	wear a respiratory protective equipment that complies with the	a respiratory protective equipment that complies with the
	requirements of European and national legislation.	requirements of European and national legislation.	requirements of European and national legislation.
	The use of half or full face masks with filters against particles of	The use of half or full face masks with filters against particles of	The use of half or full face masks with filters against particles of
	category 2 or 3 (FP2 - FP3) is recommended. See EN 143: 2000		category 2 or 3 (FP2 - FP3) is recommended. See EN 143: 2000 -
	- Respiratory protective devices. Particle filters.	2000 - Respiratory protective devices. Particle filters.	Respiratory protective devices. Particle filters.
8.2.3.	Environmental exposure controls	Environmental exposure controls	Environmental exposure controls
	Avoid wind dispersal.	Avoid wind dispersal.	Avoid wind dispersal.
Section 9.	PHYSICAL AND CHEMICAL PROPERTIES	PHYSICAL AND CHEMICAL PROPERTIES	PHYSICAL AND CHEMICAL PROPERTIES
9.1.	Information on basic physical and chemical properties	Information on basic physical and chemical properties	Information on basic physical and chemical properties
5.1.	Appearance:	Appearance:	Appearance:
	solid, grayish/white	solid, grayish/white	solid, grayish/white
	Odour:	Odour:	Odour:
	odourless	odourless	odourless
	Odour threshold:	Odour threshold:	Odour threshold:
	Not applicable	Not applicable	Not applicable
	pH (400 g/l water at 20 ℃):	pH (400 g/l water at 20°C):	pH (400 g/l water at 20 ℃):
	5 8	5 8	
	Melting point:	Melting point:	Melting point:
	> 1610°C	> 1610 °C	> 1610 °C

	Initial boiling point and boiling range:	Initial boiling point and boiling range:	Initial boiling point and boiling range:
	between 2230 ℃ and 2590 ℃	between 2230 ℃ and 2590 ℃	between 2230 ℃ and 2590 ℃
	Flash point:	Flash point:	Flash point:
	Not applicable (solid with a melting point >1610 °C)	Not applicable (solid with a melting point >1610 °C)	Not applicable (solid with a melting point >1610 °C)
	Evaporation rate:	Evaporation rate:	Evaporation rate:
	Not applicable (solid with a melting point >1610 °C)	Not applicable (solid with a melting point >1610 °C)	Not applicable (solid with a melting point >1610 °C)
	Flammability:	Flammability:	Flammability:
	Non flammable (not combustible)	Non flammable (not combustible)	Non flammable (not combustible)
	Explosive limits:	Explosive limits:	Explosive limits:
	Non explosive (absence of chemical groups associated with	Non explosive (absence of chemical groups associated with	Non explosive (absence of chemical groups associated with
	explosive properties)	explosive properties)	explosive properties)
	Vapour pressure:	Vapour pressure:	Vapour pressure:
	Not applicable (solid with a melting point >1610 °C)	Not applicable (solid with a melting point >1610 °C)	Not applicable (solid with a melting point >1610 °C)
	Vapour density:	Vapour density:	Vapour density:
	Not applicable	Not applicable	Not applicable
	Density:	Density:	Density:
	2 3 g/cm ³	2 3 g/cm ³	2 3 g/cm ³
	Grain shape:	Grain shape:	Grain shape:
	angular	angular	angular
	Solubility in water:	Solubility in water:	Solubility in water:
	negligible	negligible	negligible
	Solubility in hydrofluoric acid:	Solubility in hydrofluoric acid:	Solubility in hydrofluoric acid:
	ves	ves	ves
	Partition coefficient: n-octanol/water:	Partition coefficient: n-octanol/water:	Partition coefficient: n-octanol/water:
	Not applicable (inorganic substance)	Not applicable (inorganic substance)	Not applicable (inorganic substance)
	Auto-ignition temperature:	Auto-ignition temperature:	Auto-ignition temperature:
	No self-heating below 400 °C (solid with melting point >1610 °C)	No self-heating below 400 °C (solid with melting point >1610 °C)	No self-heating below 400 ℃ (solid with melting point >1610 ℃)
	Decomposition temperature:	Decomposition temperature:	Decomposition temperature:
	ca. 2000 ℃	ca. 2000℃	ca. 2000 ℃
	Viscosity:	Viscosity:	Viscosity:
	Not applicable (solid with a melting point >1610 °C)	Not applicable (solid with a melting point >1610 °C)	Not applicable (solid with a melting point >1610 °C)
	Explosive properties:	Explosive properties:	Explosive properties:
	Non explosive (absence of chemical groups associated with	Non explosive (absence of chemical groups associated with	Non explosive (absence of chemical groups associated with
	explosive properties)	explosive properties)	explosive properties)
	Oxidising properties:	Oxidising properties:	Oxidising properties:
	Not applicable (substance is incapable of reacting exothermically with a combustible material)	Not applicable (substance is incapable of reacting exothermically with a combustible material)	Not applicable (substance is incapable of reacting exothermically with a combustible material)
9.2.	Other information	Other information	Other information
	No other information	No other information	No other information
Section 10.	STABILITY AND REACTIVITY	STABILITY AND REACTIVITY	STABILITY AND REACTIVITY
10.1.	Reactivity	Reactivity	Reactivity
-	Inert, not reactive	Inert, not reactive	Inert, not reactive
10.2.	Chemical stability	Chemical stability	Chemical stability
	Chemically stable	Chemically stable	Chemically stable
10.3.	Possibility of hazardous reactions	Possibility of hazardous reactions	Possibility of hazardous reactions
	No hazardous reactions	No hazardous reactions	No hazardous reactions
10.4.	Conditions to avoid	Conditions to avoid	Conditions to avoid
	not relevant	not relevant	not relevant
10.5.	Incompatible materials	Incompatible materials	Incompatible materials
10.0.	Incompanior materials	Incompanior materials	Incompatible materials

	no particular incompatibility	no particular incompatibility	no particular incompatibility
10.6.	Hazardous decomposition products	Hazardous decomposition products	Hazardous decomposition products
	not relevant	not relevant	not relevant
Section 11.	TOXICOLOGICAL INFORMATION	TOXICOLOGICAL INFORMATION	TOXICOLOGICAL INFORMATION
11.1.	Information on toxicological effects	Information on toxicological effects	Information on toxicological effects
	(a) Acute toxicity;	(a) Acute toxicity;	(a) Acute toxicity;
	The acute oral/dermal LD50 of quartz and cristobalite is greater	The acute oral/dermal LD50 of quartz and cristobalite is greater	The acute oral/dermal LD50 of quartz and cristobalite is greater than
	than 2000 mg/kg.	than 2000 mg/kg.	2000 mg/kg.
	Acute toxicity inhalation:	Acute toxicity inhalation:	Acute toxicity inhalation:
	There is no specific acute toxicity data at doses that enable a	There is no specific acute toxicity data at doses that enable a	There is no specific acute toxicity data at doses that enable a
	categorical decision on the acute inhalation toxicity classification	categorical decision on the acute inhalation toxicity	categorical decision on the acute inhalation toxicity classification for
	for any form of crystalline silica at 100%. Acute inhalation toxicity	classification for any form of crystalline silica at 100%. Acute	any form of crystalline silica at 100%. Acute inhalation toxicity is not
	is not expected based on read across to an OECD compliant	inhalation toxicity is not expected based on read across to an	expected based on read across to an OECD compliant study, with a
	study, with a substance that contains 45% cristobalite and gives	OECD compliant study, with a substance that contains 45%	substance that contains 45% cristobalite and gives no indication of
	no indication of lethality. Hence further testing is not warranted	cristobalite and gives no indication of lethality. Hence further	lethality. Hence further testing is not warranted in the interests of
	in the interests of animal welfare.	testing is not warranted in the interests of animal welfare.	animal welfare.
	(b) skin corrosion/irritation;	(b) skin corrosion/irritation;	(b) skin corrosion/irritation;
	Quartz (coarse sand and milled) is not irritating to skin (OECD	Quartz (coarse sand and milled) is not irritating to skin (OECD	Quartz (coarse sand and milled) is not irritating to skin (OECD TG
	TG 404).	TG 404).	404).
	(c) serious eye damage/irritation;	(c) serious eye damage/irritation;	(c) serious eye damage/irritation;
	Quartz (coarse sand and milled) is not irritating to eye (OECD	Quartz (coarse sand and milled) is not irritating to eye (OECD	Quartz (coarse sand and milled) is not irritating to eye (OECD TG
	TG 405) .	TG 405) .	405) .
	(d) respiratory or skin sensitisation;	(d) respiratory or skin sensitisation;	(d) respiratory or skin sensitisation;
	No evidence of skin sensitisation in handbook data.	No evidence of skin sensitisation in handbook data.	No evidence of skin sensitisation in handbook data.
	(e) germ cell mutagenicity;	(e) germ cell mutagenicity;	(e) germ cell mutagenicity;
	Quartz has a genotoxic and mutagenic effect mainly through its		Quartz has a genotoxic and mutagenic effect mainly through its
	inflammatory effects. Respirable quartz was unable to cause	inflammatory effects. Respirable quartz was unable to cause	inflammatory effects. Respirable quartz was unable to cause
	increased HPRT mutations in rat lung epithelial cells in vitro.	increased HPRT mutations in rat lung epithelial cells in vitro.	increased HPRT mutations in rat lung epithelial cells in vitro.
	(0,,1,,1,9	(1)	(0,,1,,1,1)
	(f) carcinogenicity;	(f) carcinogenicity;	(f) carcinogenicity;
	Lung cancer excess risk is demonstrated only under high	Lung cancer excess risk is demonstrated only under high	Lung cancer excess risk is demonstrated only under high
	occupational exposures to Respirable Crystalline Silica. The lung cancer excess risk is restricted to subjects who contracted		occupational exposures to Respirable Crystalline Silica. The lung cancer excess risk is restricted to subjects who contracted silicosis.
	silicosis.	silicosis.	cancer excess risk is restricted to subjects who contracted silicosis.
	(g) reproductive toxicity;	(g) reproductive toxicity;	(g) reproductive toxicity;
			Silica is essential for normal body function and is ingested orally via the consumption of foods containing silica naturally. An early one-
	one-generation study on Wistar rats gave no evidence of any		generation study on Wistar rats gave no evidence of any adverse
	adverse effects arising from long-term feeding of silica-rich		effects arising from long-term feeding of silica-rich water.
	water.	water.	lenects ansing from long-term reeding of silica-non water.
		(h) STOT-single exposure	(h) STOT-single exposure
-	(h) STOT-single exposure Studies available; inconclusive	Studies available: inconclusive	Studies available: inconclusive
<u> </u>	(i) STOT-repeated exposure	(i) STOT-repeated exposure	(i) STOT-repeated exposure
-	This product contains quartz (fine fraction) and is classified as	This product contains quartz (fine fraction) and is classified as	This product is not classified as STOT RE according to criteria
	STOT RE 1 according to criteria defined in the Regulation EC		defined in the Regulation EC 1272/2008
	1272/2008	1272/2008	Letined in the regulation LO 12/2/2000
	ILI LI LUUU	12122000	

	Prolonged and/or massive exposure to respirable crystalline	Prolonged and/or massive exposure to respirable crystalline	Prolonged and/or massive exposure to respirable crystalline silica-
	silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.	silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.	containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.
	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	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	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
	where required (see section 16 below for more information).	where required (see section 16 below for more information).	16 below for more information).
	(j) aspiration hazard.	(j) aspiration hazard.	(j) aspiration hazard.
	No aspiration hazard envisaged	No aspiration hazard envisaged	No aspiration hazard envisaged
	- To stop in state of the state	- To dop and the same on the same of the s	
Section 12.	ECOLOGICAL INFORMATION	ECOLOGICAL INFORMATION	ECOLOGICAL INFORMATION
12.1.	Toxicity	Toxicity	Toxicity
	not relevant	not relevant	not relevant
12.2.	Persistence and degradability	Persistence and degradability	Persistence and degradability
	not relevant	not relevant	not relevant
12.3.	Bioaccumulative potential	Bioaccumulative potential	Bioaccumulative potential
	not relevant (Some organisms accumulate Si(OH)4)	not relevant (Some organisms accumulate Si(OH)4)	not relevant (Some organisms accumulate Si(OH)4)
12.4.	Mobility in soil	Mobility in soil	Mobility in soil
	negligible	negligible	negligible
12.5.	Results of PBT and vPvB assessment	Results of PBT and vPvB assessment	Results of PBT and vPvB assessment
	not relevant	not relevant	not relevant
12.6.	Other adverse effects	Other adverse effects	Other adverse effects
	No other adverse effects known.	No specific adverse effects known.	No specific adverse effects known.
			'
Section 13.	DISPOSAL CONSIDERATIONS	DISPOSAL CONSIDERATIONS	DISPOSAL CONSIDERATIONS
	Waste treatment methods	Waste treatment methods	Waste treatment methods
	Waste from residues / unused products	Waste from residues / unused products	Waste from residues / unused products
	Where possible, recycling is preferable to disposal. Can be	Where possible, recycling is preferable to disposal. Can be	Where possible, recycling is preferable to disposal. Can be disposed
	disposed of in compliance with local regulations.	disposed of in compliance with local regulations.	of in compliance with local regulations.
	Packaging	Packaging	Packaging
	Dust formation from residues in packaging should be avoided	Dust formation from residues in packaging should be avoided	Dust formation from residues in packaging should be avoided and
	and suitable worker protection assured. Store used packaging	and suitable worker protection assured. Store used packaging	suitable worker protection assured. Store used packaging in
	in enclosed receptacles.	in enclosed receptacles.	enclosed receptacles.
	Recycling and disposal of packaging should be carried out in	Recycling and disposal of packaging should be carried out in	Recycling and disposal of packaging should be carried out in
	compliance with local regulations.	compliance with local regulations.	compliance with local regulations.
Section 14.	TRANSPORT INFORMATION	TRANSPORT INFORMATION	TRANSPORT INFORMATION
14.1.	UN Number	14.1. UN Number	14.1. UN Number
	not relevant	not relevant	not relevant
14.2.	UN proper shipping name	14.2. UN proper shipping name	14.2. UN proper shipping name
	not relevant	not relevant	not relevant
14.3.	Transport hazard classes	14.3. Transport hazard classes	14.3. Transport hazard classes
	ADR: Not classified	ADR: Not classified	ADR: Not classified
	IMDG: Not classified	IMDG: Not classified	IMDG: Not classified
	ICAO/IATA: Not classified	ICAO/IATA: Not classified	ICAO/IATA: Not classified
	RID: Not classified	RID: Not classified	RID: Not classified
14.4.	Packing group	14.4. Packing group	14.4. Packing group

	not applicable	not applicable	not applicable
14.5.	Environmental hazards	14.5. Environmental hazards	14.5. Environmental hazards
	not relevant	not relevant	not relevant
14.6.	Special precautions for user	14.6. Special precautions for user	14.6. Special precautions for user
	no special precautions	no special precautions	no special precautions
14.7.	Transport in bulk according to Annex II of MARPOL73/78	14.7. Transport in bulk according to Annex II of	14.7. Transport in bulk according to Annex II of MARPOL73/78
	and the IBC Code	MARPOL73/78 and the IBC Code	and the IBC Code
	not relevant	not relevant	not relevant
Section 15.	REGULATORY INFORMATION	REGULATORY INFORMATION	REGULATORY INFORMATION
15.1.	Safety, health and environmental regulations/legislation	Safety, health and environmental regulations/legislation	Safety, health and environmental regulations/legislation specific
	specific for the substance	specific for the substance or mixture	for the substance or mixture
	National legislation/requirements:		National legislation/requirements:
	To be completed by the company.	To be completed by the company.	To be completed by the company.
	Water Hazard Classification (Germany)	Water Hazard Classification (Germany)	Water Hazard Classification (Germany)
	NWG	NWG	NWG
	International legislation/requirements:		International legislation/requirements:
	To be completed by the company.	To be completed by the company.	To be completed by the company.
15.2.	Chemical safety assessment	Chemical safety assessment	Chemical safety assessment
	Exempted from REACH Registration in accordance with Annex		Exempted from REACH Registration in accordance with Annex V.7.
	V.7. of Regulation (EC) 1907/2006.	V.7. of Regulation (EC) 1907/2006.	of Regulation (EC) 1907/2006.
Section 16.	OTHER INFORMATION		OTHER INFORMATION
	Data are based on our latest knowledge but do not constitute a		Data are based on our latest knowledge but do not constitute a
			guarantee for any specific product features and do not establish a
	a legally valid contractual relationship.	a legally valid contractual relationship.	legally valid contractual relationship.
16.1.	Revision		Revision
	Most of the 16 Sections have been updated and formatted	Most of the 16 Sections have been updated and formatted	Most of the 16 Sections have been updated and formatted according
	according to the revised ECHA Guidance on the compilation of		to the revised ECHA Guidance on the compilation of safety data
			sheets (version 3.0. of August 2015). Therefore, this SDS has been
	SDS has been completely redrafted and replaced the former		completely redrafted and replaced the former SDS (version xxx)
	SDS (version xxx) supplied.	, , , , ,	supplied.
16.2.	Abbreviations	Abbreviations	Abbreviations
	LD50: Medial lethal dose	LD50: Medial lethal dose	LD50: Medial lethal dose
	PBT: Persistent bioaccumulative toxic		PBT: Persistent bioaccumulative toxic
	STOT: Specific Target Organ Toxicity	STOT: Specific Target Organ Toxicity	STOT: Specific Target Organ Toxicity
10.0	vPvB: Very persistent very bioaccumulative	vPvB: Very persistent very bioaccumulative	vPvB: Very persistent very bioaccumulative
16.3.	Relevant H-statements		Relevant H-statements
	H 372: causes damage to lung through prolonged or repeated		Not applicable
10.4	inhalation.	repeated exposure by inhalation.	Other welcomet information
16.4.	Other relevant information	Other relevant information	Other relevant information

In 1997, IARC (the International Agency for Research on In 1997, IARC (the International Agency for Research on In 1997, IARC (the International Agency for Research on Cancer) Cancer) concluded that crystalline silica inhaled from Cancer) concluded that crystalline silica inhaled from concluded that crystalline silica inhaled from occupational sources occupational sources can cause lung cancer in humans (human occupational sources can cause lung cancer in humans (human can cause lung cancer in humans (human carcinogen category 1). carcinogen category 1). However it pointed out that not all carcinogen category 1). However it pointed out that not all However it pointed out that not all industrial circumstances, nor all industrial circumstances, nor all crystalline silica types, were to industrial circumstances, nor all crystalline silica types, were to crystalline silica types, were to be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans. be incriminated. (IARC Monographs on the evaluation of the be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans. Silica, silicates dust carcinogenic risks of chemicals to humans, Silica, silicates dust Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) France.) In 2009, in the Monographs 100 series, IARC confirmed its In 2009, in the Monographs 100 series, IARC confirmed its In 2009, in the Monographs 100 series, IARC confirmed its classification of Silica Dust, Crystalline, in the form of Quartz and classification of Silica Dust, Crystalline, in the form of Quartz classification of Silica Dust, Crystalline, in the form of Quartz and Cristobalite (IARC Monographs, Volume 100C, 2012). and Cristobalite (IARC Monographs, Volume 100C, 2012). Cristobalite (IARC Monographs, Volume 100C, 2012). In June 2003, SCOEL (the EU Scientific Committee on In June 2003, SCOEL (the EU Scientific Committee on In June 2003, SCOEL (the EU Scientific Committee on Occupational Occupational Exposure Limits) concluded that the main effect in Occupational Exposure Limits) concluded that the main effect in Exposure Limits) concluded that the main effect in humans of the humans of the inhalation of respirable crystalline silica dust is humans of the inhalation of respirable crystalline silica dust is inhalation of respirable crystalline silica dust is silicosis. "There is silicosis. "There is sufficient information to conclude that the sufficient information to conclude that the relative risk of lung cancer silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis relative risk of lung cancer is increased in persons with silicosis is increased in persons with silicosis (and, apparently, not in (and, apparently, not in employees without silicosis exposed to (and, apparently, not in employees without silicosis exposed to employees without silicosis exposed to silica dust in quarries and in silica dust in guarries and in the ceramic industry). Therefore silica dust in guarries and in the ceramic industry). Therefore the ceramic industry). Therefore preventing the onset of silicosis will preventing the onset of silicosis will also reduce the cancer also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003). risk..." (SCOEL SUM Doc 94-final, June 2003). 2003). A multi-sectoral social dialogue agreement on Workers Health A multi-sectoral social dialogue agreement on Workers Health A multi-sectoral social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Protection through the Good Handling and Use of Crystalline Protection through the Good Handling and Use of Crystalline Silica Silica and Products Containing it was signed on 25 April 2006. Silica and Products Containing it was signed on 25 April 2006. and Products Containing it was signed on 25 April 2006. This This autonomous agreement, which received the European This autonomous agreement, which received the European autonomous agreement, which received the European Commission's Commission's financial support, is based on a Good Practices Commission's financial support, is based on a Good Practices financial support, is based on a Good Practices Guide. The Guide. The requirements of the Agreement came into force on Guide. The requirements of the Agreement came into force on requirements of the Agreement came into force on 25 October 2006. 25 October 2006. The Agreement was published in the Official 25 October 2006. The Agreement was published in the Official The Agreement was published in the Official Journal of the European Journal of the European Union (2006/C 279/02). The text of the Journal of the European Union (2006/C 279/02). The text of the Union (2006/C 279/02). The text of the Agreement and its annexes. Agreement and its annexes, including the Good Practices Agreement and its annexes, including the Good Practices including the Good Practices Guide, are available from Guide, are available from http://www.nepsi.eu and provide Guide, are available from http://www.nepsi.eu and provide http://www.nepsi.eu and provide useful information and guidance for useful information for the handling of products containing useful information and guidance for the handling of products the handling of products containing respirable crystalline silica. crystalline silica (fine fraction). Literature references are containing respirable crystalline silica. Literature references are Literature references are available on request from EUROSIL, the available on request from EUROSIL, the European Association available on request from EUROSIL, the European Association European Association of Industrial Silica Producers. of Industrial Silica Producers. of Industrial Silica Producers. Health & Safety Executive (specific for UK): Detailed Health & Safety Executive (specific for UK): Detailed Health & Safety Executive (specific for UK): Detailed reviews of reviews of the scientific evidence on the health effects of reviews of the scientific evidence on the health effects of the scientific evidence on the health effects of crystalline silica have crystalline silica have been published by HSE (Health and crystalline silica have been published by HSE (Health and been published by HSE (Health and Safety Executive, UK) in the Safety Executive, UK) in the Hazard Assessment Documents Hazard Assessment Documents EH75/4 (2002) and EH75/5 (2003). Safety Executive, UK) in the Hazard Assessment Documents The HSE points out on its website that "Workers exposed to fine dust EH75/4 (2002) and EH75/5 (2003). The HSE points out on its EH75/4 (2002) and EH75/5 (2003). The HSE points out on its website that "Workers exposed to fine dust containing quartz are website that "Workers exposed to fine dust containing quartz containing quartz are at risk of developing a chronic and possibly are at risk of developing a chronic and possibly severely severely disabling lung disease known as "silicosis". In addition to at risk of developing a chronic and possibly severely disabling lung disease known as "silicosis". In addition to silicosis, there is disabling lung disease known as "silicosis". In addition to silicosis, there is now evidence that heavy and prolonged workplace silicosis, there is now evidence that heavy and prolonged exposure to dust containing crystalline silica can lead to an increased now evidence that heavy and prolonged workplace exposure to workplace exposure to dust containing crystalline silica can lead risk of lung cancer. The evidence suggests that an increased risk of dust containing crystalline silica can lead to an increased risk of to an increased risk of lung cancer. The evidence suggests that llung cancer is likely to occur only in those workers who have lung cancer. The evidence suggests that an increased risk of an increased risk of lung cancer is likely to occur only in those developed silicosis." lung cancer is likely to occur only in those workers who have workers who have developed silicosis." developed silicosis."

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. END OF THE SAFETY DATA SHEET	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	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.