## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

### 1.1 Product identifier

| | |
|---|---|
| Substance name: | Quartz |
| Synonyms: | Silica sand, Crystalline silica sand, Silicon dioxide, Quartz sand, Quartzite |
| Chemical name and formula: | SiO2 |
| Trade name: | Quartz |
| EINECS | 238-878-4 |
| CAS | 14808-60-7 |
| REACH Registr. no.: | Exempted in accordance with Annex V.7 |

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

Main applications (non exhaustive list): paint, ceramics, glass fibre, adhesives, plastics, rubber sealants, special concrete, manufacture of silicon, ferrosilicon and ironoxide pellets. Additive in production of cement and concrete. Fluxing material.

No use identified in Section 1.2. is advised against.

### 1.3 Details of the supplier of the safety data sheet

| | |
|---|---|
| Company Name: | SMA Mineral Oy |
| Address: | Selleenkatu 281<br>95450 Tornio |
| Phone No.: | +358 40 712 2360 |
| E-mail of person responsible of SDS | sds@smamineral.com |

### 1.4 Emergency telephone number

| | |
|---|---|
| European Emergency No.: | 112 |
| Poison Information Centre, Estonia | +372 626 9390 |
| Poison Information Centre, Latvia | +371 704 2468 |
| Poison Information Centre, Finland | +358 9 4711 |
| Poison Information Centre, Sweden | +46 10 456 6700 |

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the mixture

**Classification according to Regulation (EC) 1272/2008**

No classification

### 2.2 Label elements

**Labelling according to Regulation (EC) 1272/2008**

No classification (<1% Dust)

### 2.3 Other hazards

No other hazards identified.
The substance does not meet the criteria for PBT or vPvB substance according to Regulation (EC) No 1907/2006, Annex XIII.
The substance not included in the Candidate List of substances of very high concern for Authorisation.
The substance is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

| | |
|---|---|
| Name: | Quartz, |
| Amount: | SiO2 91-96 % |
| CAS: | 14808-60-7 |
| EINECS | 238-878-4 |

### 3.2 Mixtures

No impurities relevant for classification and labelling.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

Following inhalation

Movement of the exposed individual from the area to fresh air is recommended. Seek medical attention if necessarily.

Following skin contact

Remove contaminated clothing. Wash skin with soap and water. Seek medical attention if irritation persists.

Following eye contact

Rinse with copious quantities of water and seek medical attention if irritation persists.

Following ingestion

Rinse mouth with water. Consult medical attention if symptoms continue or if the product is ingested in large quantities.

Self-protection of the first aider

Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

Avoid inhalation of dust – ensure that sufficient ventilation or suitable respiratory protective equipment is used.

### 4.2 Most important symptoms and effects, both acute and delayed
No acute and delayed symptoms and effects are observed.

### 4.3 Indication of any immediate medical attention and special treatment needed
No specific actions are required.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media
**Suitable extinguishing media**
No specific extinguishing media is needed.

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

### 5.2 Special hazards arising from the substance or mixture
Non combustible. No hazardous thermal decomposition.

### 5.3 Advice for fire fighters
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 respiratory personal protective equipment in compliance with national legislation, see EN 143: 2000.

### 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 (with high-efficiency particulate air filter) to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation

### 6.4 Reference to other sections
See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling
**Protective measures**
Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. Other suitable controls may include enclosure, isolation, water suppression, respiratory protective equipment. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier.

**Advice on general occupational hygiene**

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.

Shower and change clothes at end of work shift.

### 7.2 Conditions for safe storage, including any incompatibilities

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)

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

## 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, respirable dust, respirable crystalline silica dust). List of national OELs is presented below and responsible authority is presented in next table.

Please ensure the current legislation and OELs of your country from the responsible authority.

**OELs in mg/m³ 8 hours TWA – Respirable dust – in EU 271 and Norway & Switzerland (2014):**

| Country/Authority | (inert) dust INHALABLE | (inert) dust RESPIRABLE | Quartz | Cristobalite | Tridymite | Diatomaceous earth | Amorphous silica | Fused silica | Kaolin | Mica | Talc |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Austria/I | | 5 | 0.15 | 0.15 | 0.15 | | | 0.15 | | | 2 |
| Belgium/II | | 3 | 0.1 | 0.05 | 0.05 | 3 | 2 | 0.1 | 2 | 3 | 2 |
| Bulgaria/III | | 4 | 0.07 | 0.07 | 0.07 | 1[2] | | | | | 3 |
| Cyprus/IV | | / | 10k/Q[3] | / | / | / | 2 | / | / | / | / |
| Czech Republic/V | | | 0.1 | 0.1 | 0.1 | | | 4 | | 2 | 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 | | / | 0.05 | 0.05 | 0.05 | 5 | | | | | 5 |
| France/VIII | | 5 | 0.1 | 0.05 | 0.05 | | | | 10 | | |
| Germany/IX | | 0.5[4] | /[5] | / | / | | | 0.3 | | | / |
| Greece/X | | 5 | 0.1 | 0.05 | 0.05 | | | | | | 2 |
| Hungary | | | 0.15 | 0.1 | 0.15 | | | | | | 2 |
| Ireland/XI | | 4 | 0.1 | 0.1 | 0.1 | | 2.4 | 0.08 | 2 | 0.8 | 0.8 |
| Italy/XII | | 3 | 0.05[6] | 0.05 | 0.05 | | | 0.1 | 2 | 3 | 2 |
| Lithuania/XIII | | 10 | 0.1 | 0.05 | 0.05 | | | | | | 1 |
| Luxembourg/XIV | | 6 | 0.15 | 0.15 | 0.15 | | | 0.3 | | | 2 |
| Malta[7]/ XV | | / | / | / | / | | | | | | |
| Netherlands/ XVI | 10 | 5 | 0.075 | 0.075 | 0.075 | | | | | 2.5 | 0.25 |
| Norway/ XVII | 10 | 5 | 0.1 | 0.05 | 0.05 | 1.5 | 1.5 | | | 3 | 2 |
| Poland/XVIII | 2 | 0.3 | 0.3 | 0.3 | 0.3 | 2 | 2 | 1 | 10 | | 1 |
| Portugal/ XIX | 10 | 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 | 10 | | 0.1 | 0.1 | 0.1 | | 2 | | | 2 | 2 |
| Slovenia | | | 0.15 | 0.15 | 0.15 | | | 0.3 | | | 2 |
| Spain/XXI | 10 | 3 | 0.1 | 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 | 10 | 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) Inhalable fraction
3) Q : quartz percentage – K=1
4) Defined for a density of 1 g/cm³, i.e. for minerals with a common density of 2,5 g/cm³, a calculated OEL of 1,25 mg/m³ applies.
5) 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.
6) Inspection authorities use the ACGIH recommended limit value of 0.025 mg/m³.
7) When needed, Maltese authorities refer to values from the UK for OELVs which do not exist in the Maltese legislation.

Source : IMA-Europe. Date : October 2014, updated version available at http://www.crystallinesilica.eu/content/rcs-workplace-exposure-prevention

**List of authorities and spesific national names of OEL:**

| Country | | Adopted by/Law denomination | OEL Name (if specific) |
|---|---|---|---|
| Austria | I | Bundesministerium für Arbeit und Soziales | Maximale ArbeitsplatzKoncentration (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°361/2007 | Přípustný expoziční limit (PEL) (=Permissible exposure limit) |
| Denmark | VI | Direktoratet fot Arbeidstilsynet | Threshold Limit Value |
| Finland | VII | National Board of Labour Protection | Occupational Exposure Standard |
| France | VIII | Ministère du Travail | Valeur limite de Moyenne d'Exposition |
| Germany | IX | Bundesministerium für Arbeit | Maximale ArbeitsplatzKoncentration (MAK) |
| Greece | X | Legislation for mining activities | |
| Ireland | XI | 2011 Code of Practice for the Safety, Health & Welfare at Work (CoP) | |
| Italy | XII | Associazone Italiana Degli Igienisti Industriali | Threshold Limit Values (based on ACGIH TLVs) |
| Lithuania | XIII | Dėl Lietuvos higienos normos HN 23:2001 | Ilgalaikio poveikio ribinė vertė (IPRV) |
| Luxembourg | XIV | Bundesministerium für Arbeit | Maximale ArbeitsplatzKoncentration (MAK) |
| Malta | XV | OHSA – LN120 of 2003, www.ohsa.org.mt | OELVs |
| Netherlands | XVI | Ministerie van Sociale Zaken en Werkgelegenheid | Publieke grenswaarden http://www.ser.nl/en/oel_database.aspx |
| Norway | XVII | Direktoratet for Arbeidstilsynet | Administrative Normer (8hTWA) for Forurensing I ArbeidsmiljØet |
| Poland | XVIII | Regulation of the Minister of Labour and Social – 29.11.2002 | Limit values |
| 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. | OEL |

| | | | |
|---|---|---|---|
| | | Government Decision n° 1093/2006 regarding carcinogenic agents (in Annex 3: Quartz, Cristobalite, Tridymite). | |
| 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 : October 2014, updated version available at http://www.crystallinesilica.eu/content/rcs-workplace-exposure-prevention

### 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.

**Individual protection measures, such as personal protective equipment**

a) Eye/face protection

Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.

b) 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.

c) 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.

d) Respiratory protection

In case of prolonged exposure to airborne dust concentrations, wear a respiratory protective equipment that complies with the requirements of European or national legislation.

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 - Respiratory protective devices. Particle filters

#### 8.2.1 Environmental exposure controls

Avoid wind dispersal.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| a) | Physical state | solid |
| b) | Colour | grayish/white |
| c) | Odour | odourless |
| d) | Melting point/freezing point | 1610°C |
| e) | Boiling point or initial boiling point and boiling range | between 2230°C and 2590°C |
| f) | Flammability | nonflammable (not combustible) |
| g) | Lower and upper explosion limit | Non explosive (absence of chemical groups associated with explosive properties) |
| h) | Flash point | Not applicable (solid with a melting point >1610°C) |
| i) | Auto-ignition temperature | No self-heating below 400°C |
| j) | Decomposition temperature | ca. 2000°C |
| k) | pH | 5-8 (400 g/l water at 20°C) |
| l) | Kinematic viscosity | Not applicable (solid with a melting point >1610°C) |
| m) | Solubility | negligible |
| n) | Partition coefficient n-octanol/water (log value) | not available |
| o) | Vapour pressure | not available |
| p) | Density and/or relative density | 2-3 g/cm$^3$ |
| q) | Relative vapour density | not available |
| r) | Particle characteristics | varying sizes; coarsed sand or milled, angular |

### 9.2 Other information

**Information with regard to physical hazard classes**

Not applicable.

Non explosive (absence of chemical groups associated with explosive properties).

No oxidising properties (substance is incapable of reacting exothermically with a combustible material).

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Inert, not reactive

### 10.2 Chemical stability

Chemically stable

### 10.3 Possibility of hazardous reactions

No hazarous reactions.

### 10.4 Conditions to avoid

Not relevant.

### 10.5 Incompatible materials
No particular incompatibility.

### 10.6 Hazardous decomposition products
Not relevant.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**a) Acute toxicity**

The acute oral/dermal LD50 of quartz and cristobalite is greater than 2000 mg/kg.

Acute tocix inhalation:

There is no specific acute toxicity data at doses that enable a categorical decision on the acute inhalation toxicity classification for any form of crystalline silica at 100%. Acute inhalation toxicity is not expected based on read across to an OECD compliant study, with a substance that contains 45% cristobalite and gives no indication of lethality. Hence further testing is not warranted in the interests of animal welfare.

**b) Skin corrosion/irrition**

Quartz (coarse sand and milled) is not irritating to skin (OECD TG 404).

**c) Serious eye damage/irritation**

Quartz (coarse sand and milled) is not irritating to eye (OECD TG 405).

**d) Respiratory or skin sensitisation**

No evidence of skin sensitisation in handbook data.

**e) Germ cell mutagenicity**

Quartz has a genotoxic and mutagenic effect mainly through its inflammatory effects. Respirable quartz was unable to cause increased HPRT mutations in rat lung epithelial cells in vitro.

**f) Carcinogenicity**

Lung cancer excess risk is demonstrated only under high occupational exposures to Respirable Crystaline Silica. The lung cancer excess risk is restricted to subjects who contracted silicosis.

**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-generation study on Wistar rats gave no evidence of any adverse effects arising from long-term feeding of silica-rich water.

**h) STOT-single exposure**

Studies available; inconclusive

**i) STOT-repeated exposure**

This product is not classified as STOT RE according to criteria defined in the Regulation EC 1272/2008.

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.

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 for more information).

**j) Aspiration hazard**

No aspiration hazard envisaged

### 11.2 Information on other hazards

#### 11.2.1 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.

### 11.3 Other information

None

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

Not relevant

### 12.2 Persistence and degradability

Not relevant

### 12.3 Bioaccumulative potential

Not relevant

### 12.4 Mobility in soil

Negligible

### 12.5 Results of PBT and vPvB assessment

Not relevant

### 12.6 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.

### 12.7 Other adverse effects

No specific adverse effects known.

## 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.

Packaging

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.

## SECTION 14: TRANSPORT INFORMATION

Quartz is not classified as hazardous for transport (ADR (Road), RID (Rail), IMDG / GGVSea (Sea).

### 14.1 UN number
Not relevant.

### 14.2 UN proper shipping name
Not relevant.

### 14.3 Transport hazard class(es)
Not relevant

### 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 MARPOL73/78 and the IBC Code
Not regulated.

## SECTION 15: REGULATORY INFORMATION

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

| | |
|---|---|
| EU regulations | Not relevant |
| Use restrictions | None |

National regulations:

Workers need to be informed about existence of quartz dust and they have to be trained to use and handling of product according to current legislation.

### 15.2 Chemical safety assessment
Exempted from REACH Registration in accordance with Annex V.7. of Regulation (EC) 1907/2006.

## SECTION 16: OTHER INFORMATION

Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.

### 16.1 Abbreviations

LD50: Medial lethal dose
PBT: Persistent bioaccumulative toxic
STOT: Specific Target Organ Toxicity
vPvB: Very persistent very bioaccumulative
OEL: Occupational exposure level
SDS: Safety data sheet
TWA: time-weighted average
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Dangerous Goods Code
RID: Regulations concerning the international railway transport of dangerous goods

### 16.2 Revision

31-12-2022 Version 5.0 EN
The SDS has been revised to comply with Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of REACH.
Section 2.3: information added
Section 4.1: information added
Section 9, 11.2, 12.6: updated according to Regulation (EU) 2020/878

September 2018 Version 4.1 EN
Section 1.3: Changed contact info
Section 1.4: Expanded the list of poison information centers

September 2017 (Version 4.0 EN)
This is the first version in English based on the Finnish version 4.0(2017) of quartz sds.
Section 8.1: Added list of oels and table of authorities
Setion 16.3: Added abbreviation TWA, ADR, IMDG, RID in list

### 16.3 Other relevant information

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).

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 respirable crystalline silica. Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers.

Health & Safety Executive (specific for UK): 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.

*Disclaimer*

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.