



SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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965 investment

Revision 0

Revision date 2016-03-16

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

1.1. Product identifier

| | |
|--------------|----------------------------|
| Product name | 965 investment |
| Product code | 965 investment 031616 C519 |

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

| | |
|-------------|---|
| Product Use | [SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites; |
| Description | Foundry material. |

1.3. Details of the supplier of the safety data sheet

| | |
|---------------------------------------|--|
| Company | Ransom & Randolph |
| Address | 3535 Briarfield Boulevard, Maumee, OH 43537 USA |
| Web | www.ransom-randolph.com |
| Telephone | +1 (419) 865-9497 |
| Fax | +1 (419) 865-9997 |
| Email | RR.SDS@dentsply.com |
| Email address of the competent person | RR.SDS@dentsply.com |

1.4. Emergency telephone number

| | |
|----------------------------|--|
| Emergency telephone number | USA +1 419 865 9497 |
| Company | Ransom & Randolph Co. 07:30 to 16:30 (Eastern Std. / GMT minus 5) |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

| | |
|--------------------------------------|---|
| 2.1.1. Classification - 1999/45/EC | Xn; R48/20 Symbols: Xn: Harmful. |
| Main hazards | Harmful: danger of serious damage to health by prolonged exposure through inhalation. |
| 2.1.2. Classification - EC 1272/2008 | STOT RE 1: H372; |

2.2. Label elements

| | |
|-------------------------------------|--|
| Hazard pictograms | |
| Signal Word | Danger |
| Hazard Statement | STOT RE 1: H372 - Causes damage to organs (lungs) through prolonged or repeated exposure . |
| Precautionary Statement: Prevention | P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P264 - Wash (hands) thoroughly after handling. P270 - Do no eat, drink or smoke when using this product. |

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2.2. Label elements

| | |
|--|--|
| Precautionary Statement: Response | P314 - Get medical advice/attention if you feel unwell. |
| Precautionary Statement: Disposal | P501 - Dispose of contents/container to local and national regulations |

2.3. Other hazards

| | |
|----------------------|---|
| Other hazards | Product contains respirable crystalline silica (RCS). Not applicable. PBT and vPvB assessment. |
|----------------------|---|

SECTION 3: Composition/information on ingredients

3.2. Mixtures

67/548/EEC / 1999/45/EC

| Chemical Name | Index No. | CAS No. | EC No. | REACH Registration Number | Conc. (%w/w) | Classification | M-factor. |
|------------------------------------|-----------|------------|-----------|---------------------------|--------------|----------------|-----------|
| Silica (cristobalite) | | 14464-46-1 | 238-455-4 | | 20 - 40% | Xn; R48/20 | |
| Mullite (Kaolin) | | 1332-58-7 | | | 5 - 10% | | |
| Quartz | | 14808-60-7 | 238-878-4 | | 20 - 40% | Xn; R48/20 | |
| Calcium sulfate (Plaster of Paris) | | 26499-65-0 | | | 20 - 40% | | |

EC 1272/2008

| Chemical Name | Index No. | CAS No. | EC No. | REACH Registration Number | Conc. (%w/w) | Classification | M-factor. |
|------------------------------------|-----------|------------|-----------|---------------------------|--------------|------------------|-----------|
| Silica (cristobalite) | | 14464-46-1 | 238-455-4 | | 20 - 40% | STOT RE 1: H372; | |
| Mullite (Kaolin) | | 1332-58-7 | | | 5 - 10% | | |
| Quartz | | 14808-60-7 | 238-878-4 | | 20 - 40% | STOT RE 1: H372; | |
| Calcium sulfate (Plaster of Paris) | | 26499-65-0 | | | 20 - 40% | | |
| amorphous glass fiber | | 65997-17-3 | | | 0 - 5% | | |

Further information

| | |
|--|--|
| | Full text for all Risk Phrases mentioned in this section are displayed in Section 16. Silica (Cristobalite) "fine fraction" >= 10 % w/w / CAS 14464-46-1, EC No 238-455-4 / STOT RE1: H372. Quartz -- 1 % w/w < "fine fraction" < 10 % w/w / CAS 14808-60-7, EC No 238-878-4 / STOT RE2: H373. |
|--|--|

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------|---|
| Inhalation | Move the exposed person to fresh air. |
| Eye contact | Rinse immediately with plenty of water for 15 minutes holding the eyelids open. |
| Skin contact | Wash with soap and water. |
| Ingestion | Drink 1 to 2 glasses of water. DO NOT INDUCE VOMITING. |

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

| | |
|---------------------|---|
| Inhalation | May cause irritation to respiratory system. |
| Eye contact | May cause irritation to eyes. |
| Skin contact | May cause irritation to skin. |
| Ingestion | May cause irritation to mucous membranes. |

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

| | |
|--------------|---|
| Inhalation | Seek medical attention if irritation or symptoms persist. |
| Eye contact | Seek medical attention if irritation or symptoms persist. |
| Skin contact | Seek medical attention if irritation or symptoms persist. |
| Ingestion | Seek medical attention if irritation or symptoms persist. |

SECTION 5: Firefighting measures**5.1. Extinguishing media**

| | |
|--|---|
| | Use extinguishing media appropriate to the surrounding fire conditions. |
|--|---|

5.2. Special hazards arising from the substance or mixture

| | |
|--|---|
| | Burning produces irritating, toxic and obnoxious fumes. |
|--|---|

5.3. Advice for firefighters

| | |
|--|--|
| | Self-contained breathing apparatus. Wear suitable protective clothing. |
|--|--|

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

| | |
|--|--|
| | Avoid formation of dust. Wear suitable respiratory equipment when necessary. |
|--|--|

6.2. Environmental precautions

| | |
|--|--------------------------------|
| | No environmental requirements. |
|--|--------------------------------|

6.3. Methods and material for containment and cleaning up

| | |
|--|--|
| | Avoid raising dust. Clean the area using a vacuum cleaner. Transfer to suitable, labelled container. |
|--|--|

6.4. Reference to other sections

| | |
|--|--|
| | See section [2, 8 & 13] for further information. |
|--|--|

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

| | |
|--|---|
| | Ensure adequate ventilation of the working area. Avoid formation of dust. In case of insufficient ventilation, wear suitable respiratory equipment. |
| | Do not eat, drink or smoke in areas where this product is used or stored. Wash hands after handling the product. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|--|---------------------------------|
| | Keep containers tightly closed. |
|--|---------------------------------|

7.3. Specific end use(s)

| | |
|--|-------------------|
| | Foundry material. |
|--|-------------------|

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

| | |
|--|--|
| | Ensure adequate ventilation of the working area. |
|--|--|

8.1.1. Exposure Limit Values

| | |
|--|--|
| | |
|--|--|

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8.1.1. Exposure Limit Values

| | | |
|------------------------------------|--|---|
| Calcium sulfate (Plaster of Paris) | WEL 8-hr limit ppm: - WEL 15 min limit ppm: - WEL 8-hr limit mg/m3 total 10 inhalable dust: WEL 8-hr limit mg/m3 total 4 respirable dust: | WEL 8-hr limit mg/m3: - WEL 15 min limit mg/m3: - WEL 15 min limit mg/m3 total - inhalable dust: WEL 15 min limit mg/m3 total - respirable dust: |
| Mullite (Kaolin) | WEL 8-hr limit ppm: - WEL 15 min limit ppm: - WEL 8-hr limit mg/m3 total - inhalable dust: WEL 8-hr limit mg/m3 total 2 respirable dust: | WEL 8-hr limit mg/m3: - WEL 15 min limit mg/m3: - WEL 15 min limit mg/m3 total - inhalable dust: WEL 15 min limit mg/m3 total - respirable dust: |
| Quartz | WEL 8-hr limit ppm: WEL 15 min limit ppm: WEL 8-hr limit mg/m3 total - inhalable dust: WEL 8-hr limit mg/m3 total - respirable dust: | WEL 8-hr limit mg/m3: 0.3 WEL 15 min limit mg/m3: WEL 15 min limit mg/m3 total - inhalable dust: WEL 15 min limit mg/m3 total - respirable dust: |

8.2. Exposure controls

| | |
|---|---|
| |   |
| 8.2.1. Appropriate engineering controls | Ensure adequate ventilation of the working area. |
| 8.2.2. Individual protection measures | Wear protective clothing. |
| Eye / face protection | In case of splashing, wear:.. Approved safety goggles. safety glasses with side-shields. |
| Skin protection - Handprotection | Wear suitable gloves. |
| Respiratory protection | Suitable respiratory equipment. |
| 8.2.3. Environmental exposure controls | Not normally required. |
| Occupational exposure controls | Appropriate local exhaust ventilation is required. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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9.1. Information on basic physical and chemical properties

| | |
|----------------------------------|---------------------------|
| Appearance | Powder |
| Colour | Off white |
| Odour | Slight |
| pH | 6 - 8 |
| Melting point | No data available |
| Freezing Point | Not applicable. |
| Initial boiling point | Not applicable. |
| Evaporation rate | Not applicable. |
| Flammability (solid, gas) | Not applicable. |
| Vapour pressure | Not applicable. |
| Vapour density | Not applicable. |
| Relative density | 2.5 |
| Fat Solubility | Not applicable. |
| Partition coefficient | No data available |
| Autoignition temperature | Not applicable. |
| Viscosity | No data available |
| Explosive properties | Not applicable. |
| Oxidising properties | Not applicable. |
| Solubility | Slightly soluble in water |

9.2. Other information

| | |
|---|-------------------|
| Conductivity | No data available |
| Surface tension | No data available |
| Gas group | Not applicable. |
| Benzene Content | Not applicable. |
| Lead content | Not applicable. |
| VOC (Volatile organic compounds) | Not applicable. |

SECTION 10: Stability and reactivity

10.1. Reactivity

| | |
|--|-----------------|
| | Not applicable. |
|--|-----------------|

10.2. Chemical stability

| | |
|--|---------------------------------|
| | Stable under normal conditions. |
|--|---------------------------------|

10.3. Possibility of hazardous reactions

| | |
|--|------------------------|
| | No Significant Hazard. |
|--|------------------------|

10.4. Conditions to avoid

| | |
|--|------------------------|
| | No Significant Hazard. |
|--|------------------------|

10.5. Incompatible materials

| | |
|--|------------------------|
| | No Significant Hazard. |
|--|------------------------|

10.6. Hazardous decomposition products

| | |
|--|---|
| | Hazardous Decomposition Products (silica): Crystalline silica will dissolve in hydrofluoric acid and produce silicone tetrafluoride. Reaction with water or acids generates heat. |
|--|---|

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|----------------------------------|---|
| Acute toxicity | Not applicable. Based on available data, the classification criteria are not met. |
| Skin corrosion/irritation | Not applicable. Based on available data, the classification criteria are not met. |

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11.1. Information on toxicological effects

| | |
|-----------------------------------|---|
| Serious eye damage/irritation | Not applicable. Based on available data, the classification criteria are not met. |
| Respiratory or skin sensitisation | Not applicable. Based on available data, the classification criteria are not met. |
| Germ cell mutagenicity | Not applicable. Based on available data, the classification criteria are not met. |
| Carcinogenicity | Not applicable. Based on available data, the classification criteria are not met. |
| Reproductive toxicity | Not applicable. Based on available data, the classification criteria are not met. |
| STOT-single exposure | Not applicable. Based on available data, the classification criteria are not met. |
| STOT-repeated exposure | <p>Chronic effects</p> <p>Prolonged inhalation of respirable crystalline silica</p> <p>In 1997, the International Agency for Research on Cancer (IARC) 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 fibers, 1997, Vol. 68, IARC, Lyon, France). In June 2003, the European Commission's Scientific Committee for Occupational Exposure Limits (SCOEL) concluded:</p> <p>"that the main effect in humans of the inhalation of respirable crystalline silica is silicosis. There is sufficient information to conclude that the relative lung cancer risk 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. Since a clear threshold for silicosis development cannot be identified, any reduction of exposure will reduce the risk of silicosis."</p> <p>(SCOEL SUM Doc 94-final on respirable crystalline silica, June 2003)</p> <p>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).</p> |
| Aspiration hazard | Not applicable. Based on available data, the classification criteria are not met. |
| Repeated or prolonged exposure | Inhalation of dust may cause shortness of breath. |

11.1.4. Toxicological Information

| | |
|--|-----------------|
| | Not applicable. |
|--|-----------------|

SECTION 12: Ecological information

12.1. Toxicity

| | |
|--|-------------------|
| | No data available |
|--|-------------------|

12.2. Persistence and degradability

| | |
|--|-----------------|
| | Not applicable. |
|--|-----------------|

12.3. Bioaccumulative potential

| | |
|--|-------------------------|
| | Does not bioaccumulate. |
|--|-------------------------|

Partition coefficient

| | |
|--|----------------------------------|
| | 965 investment No data available |
|--|----------------------------------|

12.4. Mobility in soil

| | |
|--|-----------------|
| | Not determined. |
|--|-----------------|

12.5. Results of PBT and vPvB assessment

| | |
|--|-----------------|
| | Not determined. |
|--|-----------------|

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12.6. Other adverse effects

Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of in compliance with all. local and national regulations.

Disposal methods

Contact a licensed waste disposal company.

Disposal of packaging

Do NOT reuse empty containers. Empty containers can be sent for disposal or recycling.

Further information

For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

SECTION 14: Transport information

14.1. UN number

The product is not classified as dangerous for carriage.

14.2. UN proper shipping name

The product is not classified as dangerous for carriage.

14.3. Transport hazard class(es)

The product is not classified as dangerous for carriage.

14.4. Packing group

The product is not classified as dangerous for carriage.

14.5. Environmental hazards

The product is not classified as dangerous for carriage.

14.6. Special precautions for user

The product is not classified as dangerous for carriage.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

The product is not classified as dangerous for carriage.

Further information

The product is not classified as dangerous for carriage.

SECTION 15: Regulatory information

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

Regulations

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

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15.2. Chemical safety assessment

No data is available on this product.

SECTION 16: Other information

Other information

| | |
|--|---|
| | <p>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.</p> <p>Social Dialogue on Respirable 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 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,.</p> <p>STOT RE1: H372 - DANGER - Causes damage to lungs through prolonged or repeated exposure by inhalation.</p> |
| Text of risk phrases in Section 3 | R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation. |
| Text of Hazard Statements in Section 3 | STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure . |

Further information

| | |
|--|---|
| | <p>The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.</p> |
|--|---|