

SAFETY DATA SHEET

according to Regulation (EU) 2015/830

Page 1/7

Chromex™ Fine investment

Revision **Revision date** 2021-08-31

| SECTION 1: | Identification | of the substance | /mixture and | of the compa | ny/undertaking |
|------------|----------------|------------------|--------------|--------------|----------------|
| | | | | | |

1.1. Product identifier

Chromex™ Fine investment **Product name**

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, PO Box 1570

Maumee, Ohio 43537 USA

USA +1 419 865 9497

Web www.ransom-randolph.com

Telephone +1 (419) 865-9497 Fax +1 (419) 865-9997

Email SDS@ransom-randolph.com Email address of the dyouel@ransom-randolph.com

competent person

1.4. Emergency telephone number

Emergency telephone number

Company

Ransom & Randolph Co.

08:00-17:00 (US Eastern Std. / GMT minus 5)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - EC Carc. 1A: H350; STOT RE 1: H372; 1272/2008

2.2. Label elements

This substance / mixture has been classified in accordance with the US Federal OSHA Hazard Communication Standard 29CFR 1910.1200. Substance concentration band-ranges are presented, and minor ingredient composition maybe withheld, to protect trade secrets.

Hazard pictograms



Signal Word

Hazard Statement

Carc. 1A: H350 - May cause cancer (lungs), Inhalation.

STOT RE 1: H372 - Causes damage to organs (lungs) through prolonged or repeated exposure

Prevention

Precautionary Statement:

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

Chromex[™] Fine investment

Revision 0 Revision date 2021-08-31

| 2.2. | Label | elements |
|------|-------|----------|
| | | |

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.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P285 - In case of inadequate ventilation wear respiratory protection.

Precautionary Statement:

Response

P308+P313 - IF exposed or concerned: Get medical advice/attention.

P314 - Get medical advice/attention if you feel unwell.

Precautionary Statement:

Storage

Disposal

P405 - Store locked up.

Precautionary Statement: P501 - Dispose of contents/container to local and national regulations

2.3. Other hazards

Other hazards Product contains respirable crystalline silica (RCS).

Further information

Not applicable. PBT and vPvB assessment.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EC 1272/2008

| Chemical Name | Index No. | CAS No. | EC No. | REACH Registration Number | Conc. (%w/w) | Classification |
|-------------------------|-----------|------------|-----------|------------------------------|-----------------|----------------------------|
| quartz (conc. >/= 1.0%) | | 14808-60-7 | 238-878-4 | | 90 - 100% | Carc. 1A: H350; STOT RE 1: |
| | | | | | | H372; |

Further information

Full text for all Risk Phrases mentioned in this section are displayed in Section 16.

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. |

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

Revision 0
Revision date 2021-08-31

| 5.2. Special hazards arising from | n 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 rele | ase measures |
| 6.1. Personal precautions, prote | ective equipment and emergency procedures |
| | Avoid raising dust. |
| 6.2. Environmental precautions | |
| | Use appropriate container to avoid environmental contamination. |
| 6.3. Methods and material for co | ontainment and cleaning up |
| | Avoid raising dust. Clean the area using a vacuum cleaner. Transfer to suitable, labelled containers for disposal. |
| 6.4. Reference to other sections | i |
| | See section [2, 8 & 13] for further information. |
| SECTION 7: Handling and s | torage |
| 7.1. Precautions for safe handling | ng |
| | Avoid formation of dust. Ensure adequate ventilation of the working area. <. OEL: Occupational exposure limit. 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 contr | ols/personal protection |
| 8.1. Control parameters | |
| | all respirable crystalline silica - sum of all types - quartz + cristobalite TWA PEL OSHA (respirable fraction) 0.050 mg/m3 Action Level OSHA (respirable fraction) 0.025 mg/m3. |
| 8.2. Exposure controls | <u>. </u> |
| | |





| Ö. | 2 | .1. | A | pp | rc | pı | rate | eng | gine | erin | g |
|----|----|-----|-----|----|----|----|------|-----|------|------|---|
| C | on | tre | ols | | | | | | | | |
| | | | | | | | | | | | |

 $\label{thm:ensure} \mbox{Ensure adequate ventilation of the working area. <. OEL: Occupational exposure limit. }$

8.2.2. Individual protection measures

Wear:. Protective clothing. applicable international Standards are. EN13982, $\,$ ANSI 103 $\,$ or $\,$ =.

Eye / face protection

Avoid contact with eyes. Wear:. Approved safety goggles. safety glasses with side-shields. applicable international Standards are. EN166, ANSI Z87.1 or =.

Skin protection - Handprotection

Avoid contact with skin. Wear suitable gloves. applicable international Standards are. EN374, ASTM F1001 $\,$ or =.

Respiratory protection

Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects.

Chromex[™] Fine investment

Revision 0 Revision date 2021-08-31

Print date 2021-08-31

8.2. Exposure controls

After selection by a Qualified person. Wear:. Suitable respiratory equipment. applicable international Standards are. EN140, EN143, ASTM F2704-10 or =.

8.2.3. Environmental exposure controls

Use appropriate container to avoid environmental contamination.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Powder

Colour Off white

Odourless Odour

≈ 2200 °C Melting point

Freezing Point Not applicable.

Initial boiling point Not applicable.

Flash point Not applicable.

Evaporation rate Not applicable.

Flammability (solid, gas) Not applicable.

Vapour pressure Not applicable.

Vapour density Not applicable.

Relative density

Fat Solubility Not applicable.

Partition coefficient No data available

Autoignition temperature Not applicable.

Viscosity No data available

Not applicable.

Explosive properties

Oxidising properties Not applicable.

Solubility Insoluble 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 Not applicable. compounds)

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

Moisture.

10.5. Incompatible materials

No Significant Hazard.

10.6. Hazardous decomposition products

Hazardous Decomposition Products (silica): Crystalline silica will dissolve in hydrofluoric acid

Revision 0 Revision date 2021-08-31

10.6. Hazardous decomposition products

and produce silicone tetrafluoride. Reaction with water or acids generates heat

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Skin corrosion/irritation

Serious eye damage/irritation

Respiratory or skin sensitisation

Germ cell mutagenicity

Carcinogenicity

Reproductive toxicity

STOT-single exposure

STOT-repeated exposure

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

Prolonged or repeated exposure may cause irritation to skin and mucous membranes.

No irritation expected.

No sensitizaton effects reported.

No mutagenic effects reported.

Known Human Carcinogens (Category 1).

No observed effect level. No observed effect concentration.

No known adverse health effects.

Chronic effects

Prolonged inhalation of respirable crystalline silica

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:

"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."

(SCOEL SUM Doc 94-final on respirable crystalline silica, June 2003)

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).

Aspiration hazard

Repeated or prolonged exposure

No Significant Hazard.

Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system.

11.1.4. Toxicological Information

No data available

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data is available on this product.

12.3. Bioaccumulative potential

Does not bioaccumulate.

Partition coefficient

Chromex™ Fine investment No data available

ChemSoft EH&S

Revision 0

| | TOVISION CALL EDG 1-00-0 |
|-----------------------------------|--|
| 12.4. Mobility in soil | |
| | Not determined. |
| 12.5. Results of PBT and vPvB | assessment |
| | Not determined. |
| 12.6. Other adverse effects | |
| | Not applicable. |
| SECTION 13: Disposal cons | iderations |
| 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 | |
| | Empty containers can be sent for disposal or recycling. |
| SECTION 14: Transport info | rmation |
| 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 use | er |
| | The product is not classified as dangerous for carriage. |
| 14.7. Transport in bulk according | g 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 inf | ormation |
| 45.4.0-5-4 | |

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

Regulations

U.S. FEDERAL REGULATIONS: Chromex family of investments. CERCLA 103 Reportable Quantity: is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:

Hazard Category For Section 311/312: Chronic health

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Section 302 Extremely Hazardous Substances (TPQ): None

Revision 0 Revision date 2021-08-31

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

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

U.S. STATE REGULATIONS

INTERNATIONAL REGULATIONS:

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL).

Canadian WHMIS Classification: Class D2A (Chronic toxic effects), D2A (Carcinogenicity).

15.2. Chemical safety assessment

No data is available on this product.

SECTION 16: Other information

Other information

| Text of Hazard Statements | ir |
|----------------------------------|----|
| Section 3 | |

Carc. 1A: H350 - May cause cancer.

STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure .

Further information

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.

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.