



SAFETY DATA SHEET

according to Regulation (EU) 2015/830

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Chilches Zircon- all grades

Revision 0

Revision date 2022-02-04

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

1.1. Product identifier

Product name Chilches Zircon- all grades

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

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
Web www.ransom-randolph.com
Telephone +1 (419) 865-9497
Fax +1 (419) 865-9997
Email SDS@ransom-randolph.com
Email address of the competent person dyouel@ransom-randolph.com

1.4. Emergency telephone number

Emergency telephone number USA +1 419 865 9497
Company Ransom & Randolph Co.
08:00-17:00 (US Eastern Std. / GMT minus 5)

SECTION 2: Hazards identification

2.2. Label elements

Precautionary Statement: Prevention This mixture/substance does not meet the criteria for classification in accordance with Regulation (EC) No 1272/2008.
Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statement: Response Seek medical attention if irritation or symptoms persist.

Hazard Statement No Significant Hazard

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
zirconium silicate		14940-68-2			90 - 100%	

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Further information

	<p>This product as provided contains less than 0.015% of Respirable Crystalline Silica (RCS). This material is considered a Naturally Occurring Radioactive Material (NORM) (radioactive material according to IAEA if it exceeds 1 Bq /g).</p> <p>However, it is not considered a radioactive product regarding transport issues; limit of 10 Bq/g for NORM. Some countries may apply different limits; therefore, local regulations should be consulted to find out the current requirements.</p> <p>Uranium <340 ppm 3.5 - 4.0 Bq/g Thorium <150 ppm 0.5 - 0.6 Bq/g Other daughter nuclides: in secular equilibrium.</p> <p>Full text for all Risk Phrases mentioned in this section are displayed in Section 16.</p>
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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.
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5.2. Special hazards arising from the substance or mixture

	Burning produces irritating, toxic and obnoxious fumes.
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5.3. Advice for firefighters

	Self-contained breathing apparatus. Wear suitable protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	Avoid raising dust. Wear suitable respiratory equipment when necessary.
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6.2. Environmental precautions

	No environmental requirements.
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6.3. Methods and material for containment and cleaning up

	Avoid raising dust. Clean the area using a vacuum cleaner. Transfer to suitable, labelled containers for disposal.
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6.4. Reference to other sections

	See section [2, 8 & 13] for further information.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

	Avoid raising dust. Ensure adequate ventilation of the working area. 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.
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7.3. Specific end use(s)

	Foundry material.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

Chilches Zircon- all grades	WEL 8-hr limit ppm:	WEL 8-hr limit mg/m3: 5
	WEL 15 min limit ppm:	WEL 15 min limit mg/m3:
	WEL 8-hr limit mg/m3 total inhalable dust:	WEL 15 min limit mg/m3 total inhalable dust:
	WEL 8-hr limit mg/m3 total respirable 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	Protective clothing.
Eye / face protection	In case of splashing, wear: Suitable eye protection. EN 165, EN 166, EN 167, EN 168.
Skin protection - Handprotection	Wear suitable gloves. EN 374-1, EN 374-2, EN 374-3, EN 420.
Respiratory protection	Wear suitable respiratory equipment when necessary. P2 filter (EN149).
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	Granules./Powder
Colour	White/Brown
Odour threshold	Not applicable.
pH	4 - 8
Melting point	= 2200 °C
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	2.4 - 2.6 (H ₂ O = 1 @ 20 °C)
Fat Solubility	Not applicable.
Partition coefficient	No data available
Autoignition temperature	Not applicable.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Viscosity	No data available
Solubility	Insoluble in water

9.2. Other information

Surface tension	No data available
Gas group	Not applicable.
Benzene Content	Not applicable.
Conductivity	No data available
Lead content	Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity

	Not applicable.
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10.2. Chemical stability

	Stable under normal conditions.
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10.3. Possibility of hazardous reactions

	No Significant Hazard.
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10.4. Conditions to avoid

	Moisture.
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10.5. Incompatible materials

	No Significant Hazard.
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10.6. Hazardous decomposition products

	Hazardous Decomposition Products (Zircon): Zirconium silicate will disassociate to Zirconium Dioxide (ZRO ₂) and Silicon dioxide (SiO ₂) when heated above 1540 degrees Celsius. Hazardous Polymerization: Will not occur.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

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11.1. Information on toxicological effects

Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	No sensitization effects reported.
Germ cell mutagenicity	No mutagenic effects reported.
Carcinogenicity	No carcinogenic effects reported.
Reproductive toxicity	No observed effect level. No observed effect concentration.
STOT-single exposure	No known adverse health effects.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	No Significant Hazard.
Repeated or prolonged exposure	Based on available data, the classification criteria are not met.

11.1.4. Toxicological Information

	No data available
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SECTION 12: Ecological information

12.1. Toxicity

	No data available
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12.2. Persistence and degradability

	No data is available on this product.
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12.3. Bioaccumulative potential

	Does not bioaccumulate.
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Partition coefficient

	Chilches Zircon- all grades No data available
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12.4. Mobility in soil

	Not determined. Do not allow runoff water to enter sewers or drains.
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12.5. Results of PBT and vPvB assessment

	Not determined.
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12.6. Other adverse effects

	Not applicable.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

	Dispose of in compliance with all elements of Directive 2008/98/EC.
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Disposal methods

	Contact a licensed waste disposal company.
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Disposal of packaging

	Empty containers can be sent for disposal or recycling.
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SECTION 14: Transport information

14.1. UN number

	The product is not classified as dangerous for carriage.
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14.2. UN proper shipping name

	The product is not classified as dangerous for carriage.
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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.

15.2. Chemical safety assessment

No data is available on this product.

SECTION 16: Other information**Further information**

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.