

SAFETY DATA SHEET according to 1907/2006/EC, Article 31

Distributed by: Laguna Clay Company 14400 Lomitas Ave City of Industry, CA 91746 1-800-4Laguna info@lagunaclay.com www.lagunaclay.com

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Rigidizer

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| 1.1. Product identifier | |
|------------------------------------|---|
| Product name | Rigidizer |
| Product code | RF-458 |
| 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 th | e safety data sheet |
| Company | Laguna Clay Company |
| Address | 14400 Lomitas Ave |
| | City of Industry, CA 91746 |
| Web | www.lagunaclay.com |
| Telephone | 800-452-4862 |
| Fax | (626) 333-7694 |
| Email | info@lagunaclay.com |
| Email address of the | rose@lagunaclay.com |
| competent person | |
| 1.4. Emergency telephone num | ıber |
| Emergency telephone | USA +1 (626) 330-0631 |
| number Company | Laguna Clay Company, 14400 Lomitas Ave, City of Industry, CA 91746 |
| | 8 am to 5:00 pm Pacific time zone |
| SECTION 2: Hazards identif | fication |
| 2.1. Classification of the substa | ince or mixture |
| Main hazards | No Significant Hazard |
| 2.2. Label elements | · · · · · · |
| Risk phrases | No Significant Hazard. |
| Safety phrases | S24/25 - Avoid contact with skin and eyes. |
| Precautionary Phrases | P262 - Do not get in eyes, on skin, or on clothing. |
| 2.3. Other hazards | * |
| Other hazards | Portions of the amorphous silica may be converted to crystalline silica (cristobalite) when subjected to higher temperatures (1700° F / 927° C), such as when used in a mold for ferrous an |
| | other high temperature alloy castings. The exposure to crystalline silica is highest at the mold knockout stage of the casting process. Avoid breathing dust/fume/gas/mist/vapours/spray. |

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Further information

Based on available data, the classification criteria are not met. 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. Classification (%w/w) |
|--------------------|-----------|-----------|-----------|------------------------------|-----------------------------|
| silica (amorphous) | | 7631-86-9 | 231-545-4 | | 20 - 40% |

SECTION 4: First aid measures 4.1. Description of first aid measures Inhalation Move the exposed person to fresh air. Eve 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 ees. 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

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

Wear suitable protective equipment.

6.2. Environmental precautions

Do not allow product to enter drains.

6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material. 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

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Wash hands

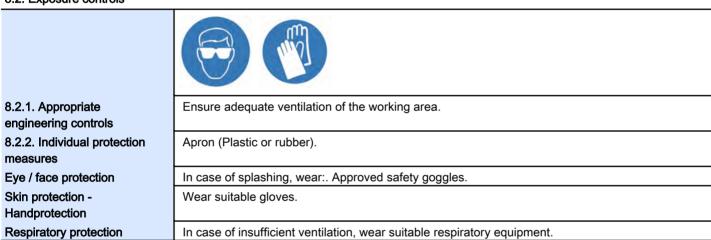
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| 7.1. Precautions for safe handli | ng | | | |
|---|--|--|--|--|
| | after handling the product. | | | |
| 7.2. Conditions for safe storage, including any incompatibilities | | | | |
| | Do NOT allow to freeze. Keep in a cool, dry, well ventilated area. Keep containers tightly closed. | | | |
| 7.3. Specific end use(s) | | | | |
| | Foundry material. | | | |
| SECTION 8: Exposure contr | ols/personal protection | | | |
| 8.1. Control parameters | | | | |
| | | | | |
| | exposure limits - Silica, vitreous (fused, a (respirable fraction). | morphous) 80 mg/m3 / (% Silica), TWA PEL | | |
| 8.1.1. Exposure Limit Values | | | | |
| BINDZIL (TM) 803 and 1430 | WEL 8-hr limit ppm: | WEL 8-hr limit mg/m3: 2.1 | | |

8.2. Exposure controls

silica)

[NA] (Matrixsol(TM) 30 colloidal



WEL 15 min limit ppm:

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

WEL 15 min limit mg/m3:

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9.1. Information on basic physical and chemical properties

State Liquid Colour Clear Odour Slight рΗ 10.2 Not applicable. Melting point Freezing Point ≈ 0 °C Boiling point ≈ 100 °C Flash point Not applicable. **Evaporation rate** No data available Flammability limits Not applicable. Vapour Flammability Not applicable. Vapour pressure No data available Vapour density No data available Relative density 1.2 (Water = 1 @ 20 °C) **Fat Solubility** Not applicable. Partition coefficient No data available Autoignition temperature Not applicable. Viscosity No data available **Explosive** Not applicable. Oxidising Not applicable. Solubility Miscible in water

9.2. Other information

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

SECTION 10: Stability and reactivity

| 10. | 1. | Rea | ctivity |
|-----|----|-----|---------|
|-----|----|-----|---------|

Not applicable.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No Significant Hazard.

10.4. Conditions to avoid

Direct sunlight. Do NOT allow to freeze.

10.5. Incompatible materials

Avoid contact with:. Sodium chloride.

10.6. Hazardous decomposition products

None.

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 May cause irritation to skin. | | |
| Serious eye damage/irritation | May cause irritation to eyes. | |

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|--------------------------------------|--|--|--|
| 11.1. Information on toxicologic | al effects | | |
| Respiratory or skin sensitisation | Based on available data, the classification criteria are not met. | | |
| Germ cell mutagenicity | Based on available data, the classification criteria are not met. | | |
| Carcinogenicity | Based on available data, the classification criteria are not met. | | |
| Reproductive toxicity | Based on available data, the classification criteria are not met. | | |
| STOT-single exposure | Based on available data, the classification criteria are not met. | | |
| STOT-repeated exposure | Based on available data, the classification criteria are not met. | | |
| Aspiration hazard | Based on available data, the classification criteria are not met. | | |
| Repeated or prolonged exposure | May cause irritation to skin. | | |
| 11.1.4. Toxicological Informatio | n en | | |
| BINDZIL (TM) 803 and 1430 [NA] | Oral Rat LD50: >15 g/kg | | |
| SECTION 12: Ecological info | ormation | | |
| 12.1. Toxicity | | | |
| BINDZIL (TM) 803 and 1430 | Daphnia EC50/48h: 7600.000 mg/l Green Algae EC50/48h: 440 | | |
| [NA] | Brachydanio Rerio LC50/96h: >5000 | | |
| 12.2. Persistence and degradal | pility | | |
| | No data is available on this product. | | |
| 12.3. Bioaccumulative potential | | | |
| | Does not bioaccumulate. | | |
| 12.4. Mobility in soil | | | |
| | Not determined. | | |
| 12.5. Results of PBT and vPvB | assessment | | |
| | Not applicable. | | |
| 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 | | | |
| | Do NOT reuse empty containers. Empty containers can be sent for disposal or recycling. | | |
| SECTION 14: Transport info | rmation | | |
| ADR/RID | | | |
| | The product is not classified as dangerous for carriage. | | |
| IMDG | | | |
| | The product is not classified as dangerous for carriage. | | |
| IATA | <u> </u> | | |
| | The product is not classified as dangerous for carriage. | | |
| Further information | 1 1 | | |
| | The product is not classified as dangerous for carriage. | | |
| | 1 product to flot oldocated do dangerous for carriage. | | |

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SECTION 15: Regulatory information

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

Regulations

U.S. FEDERAL REGULATIONS:

CERCLA 103 Reportable Quantity: Bindzil 830 & 1430 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: None

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

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

INTERNATIONAL REGULATIONS:

Canadian WHMIS Classification: Not a controlled product.

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

15.2. Chemical safety assessment

No data is available on this product.

SECTION 16: Other information

Other information

IARC and SCOEL publications

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 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..."

So 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.

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.

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

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Further 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.

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