

MATERIAL SAFETY DATA SHEETS

According to CE n°1907/2006 regulation, annexe II

1. IDENTIFICATION OF SUBSTANCE / COMPANY

Description of the material: VAL® 70 R / 72 R
Name: Secondary Raw Material.
Utilisation: Manufacturing of concrete and formed refractories.

Supplier / Producer: VALOREF S.A. – ZI La Croisière – F - 84500 BOLLENE
Phone: 33 (0) 4 90 40 50 00 / Fax: 33 (0) 4 90 40 50 01
Email: environnement@valoref.com
Urgency call number: +33 (0) 4 90 40 50 00

2. HAZARDS IDENTIFICATION

For human:
Product with a low rate of fines: risks of emission of dust while handling
Possible irritation by abrasive action
For the environment:
No

3. COMPOSITION / INFORMATION ON INGREDIENTS

Nature: Refractory grain of aluminosilicate type mullite (sintered and electrofused)

Origin: Secondary raw material from the treatment of used refractory.

Chemical characteristics: VAL® 70 R / 72 R

| <u>Elements</u> | <u>%</u> | <u>EINECS</u> | <u>CAS</u> | <u>Reach Pre-register number</u> |
|-----------------|-----------|---------------|------------|----------------------------------|
| Mullite | 93 à 97 % | 215-113-2 | 1302-93-8 | 05-2116730344-52-0000 |

4. FIRST AID MEASURES

Skin contact: Wash with water and soap.
Eyes contact: Immediately wash with water for 15 minutes and treat as well a particle.
Ingestion: Purposeless
Inhalation: Dust: go to dust free environment

5. FIRE FIGHTING MEASURES

The product is non - flammable and is not an explosion hazard.

6. ACCIDENTAL RELEASE MEASURES

Risks and spills: Pick up mechanically and clean by aspiration

7. HANDLING AND STORAGE

Handling: During the deconditioning, use an anti-dust mask, type FFP3, according to NF EN 149.
Storage: Dry storage needed.
Special care of: Dense Product, control of right capacity of silos and all containers.

For every handling use the Individual Protection Equipments.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Personal protection:
- During the handling, use the Individual Protection Equipments (Security glasses, anti-dust mask type FFP3 according to NF EN 149, security shoes).

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| Limits of inhalation: | |
| Alumina: | 5 mg/m ³ - OSHA / 10 mg/m ³ ACGIH per 8 hours (TWA) 6 mg/m ³ cellular, MAK per 8 hours 10 mg/m ³ France per 8 hours (VME) |
| Silica: | mg/m ³ , MAK – 6 mg/m ³ , OSHA per 8 hours (TWA) 10 mg/m ³ ACGIH per 8 hours (TWA) |
| Exposure control: | Handling in a ventilated area. |

9. PHYSICAL AND CHEMICAL PROPERTIES

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|----------------------|----------------------------|-------------------------------|---------------------|
| Appearance: | Granule | Odour: | Nil |
| Bulk Density: | 2.5 / 2.8 t/m ³ | Solubility into water: | Product non soluble |
| Colour: | White | Humidity: | < 1 % |

10. STABILITY AND REACTIVITY

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|-----------------------------|------|
| Physical reactivity: | Nil. |
| Chemical reactivity: | Nil. |

11. TOXICOLOGICAL INFORMATION

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|--------------------|---|
| Skin: | Nil. |
| Eyes: | Abrasive by friction. |
| Inhalation: | Injurious effect repetitive inhalation of dust. |
| Ingestion: | Nil. |

12. ECOLOGICAL INFORMATION

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|---------------------|---|
| Reaction: | Degradability: stable. Biodegradability: stable. |
| Ecotoxicity: | No information. |

13. ELIMINATION DISPOSAL

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|---------------------|---|
| Elimination: | Inert material which can be eliminated as same, but which may contain some lixiviable pollutant agent. Control of pollutant potential before elimination. |
|---------------------|---|

14. TRANSPORT INFORMATION

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| Unloading care: | For the vrac: move away the personnel of the zone of unloading. Open the doors with a mechanical or hydraulic system. |
| Regulatory care | Nil. |
| Particularised dispositions: | Nil. |

15. REGULATORY INFORMATIONS

No Phrase R

16. OTHERS INFORMATION

The information hereby contained is elements aware by Valoref fat the time of the product's delivery. They couldn't substitute any safety and care instructions specified by the company while processing. Responsibility of VALOREF couldn't be engaged in case of injuries or accident because of wrong non utilisation of this information.