

MATERIAL SAFETY DATA SHEETS

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

1. IDENTIFICATION OF SUBSTANCE / COMPANY

Description of the material: VAL® ZM 10R and 20R
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
Product with trace of natural radioactive elements (U+Th<0.05%)

For the environment:
No

3. COMPOSITION / INFORMATION ON INGREDIENTS

Nature: Refractory grain of sintered AZS
Origin: Secondary raw material from the treatment of used refractory.

Chemical characteristics: VAL® ZM 10R and 20R

<u>Elements</u>	<u>%</u>	<u>EINECS</u>	<u>CAS</u>	<u>Reach Pre-register number</u>
Mullite	67 à 72 %	215-113-2	1302-93-8	05-2116730344-52-0000
Zircone	9 à 22 %	215-227-2	1314-23-4	05-2116727678-30-0000

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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- In normal conditions of use, the product doesn't yield exposure above >1 mSv/y (1600 h/y) – public limits in accordance with Euratom 96/29 directive

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)
Zirconium:	0.5 mg/m ³ per 8 hours ACGIH, MAK and OSHA (TWA). 10mg/m ³ per 15 min ACGIH and OSHA (STEL).

Exposure control: Handling in a ventilated area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Granule	Odour:	Nil
Bulk Density:	2.8 t/m ³	Solubility into water:	Product non soluble
Colour:	Beige/Grey	Humidity:	< 1 %

10. STABILITY AND REACTIVITY

Physical reactivity:	Nil.
Chemical reactivity:	Nil.

11. TOXICOLOGICAL INFORMATION

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

12. ECOLOGICAL INFORMATION

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

13. ELIMINATION DISPOSAL

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

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.