

**REFRACOL 12 A****1. Use of the product, product and company identification****1.1 Product identification**

Name of product: REFRACOL 12 A
Product code: 157

1.2 Use of product

Use: refractory cement

1.3 Company identification

Name of supplier: REFRACOL DUPONT et Cie
Address: 35, rue de la Gare
59581 MARLY-LEZ-VALENCIENNES
FRANCE
- Telephone: (33)03-27-46-37-76
- Fax: (33)03-27-47-97-77
- e-mail: contact@refracol.com

2. Technical composition/Information about components

- Type of product:
REFRACOL 12A is made from a base of silica and sodium silicate (N°CAS 1344-09-8).
- Hazardous elements: no materials found in this product are classified as dangerous.

3. Hazard Identification**3.1 Main hazards:**

This product is not rated as hazardous.
REFRACOL 12A is an alkaline product.

3.2 Undesirable effects on health:

Main symptoms:

- | | |
|-------------------------------------|--|
| - In case of contact with the skin: | this product might cause skin rash |
| - In case of contact with eyes: | this product might irritate the eyes |
| - In case of inhaling: | not applicable |
| - In case of swallowing: | could cause stomach and digestion problems |

Specific risks: not applicable

3.2 Hazardous effects on the environment

The pH of the product is higher than ceiling restrictions concerning dumping in surface water.

4. First aid measures

- In case of contact with the skin: Rinse thoroughly with water
- In case of contact with eyes: Rinse immediately and thoroughly for at least 15 minutes. If symptoms persist, seek medical advice.
- In case of inhaling: Not applicable.
- In case of ingestion: Seek medical advice rapidly. Rinse the mouth with copious amounts of water and drink as much water as possible. Do not induce vomiting.

5. Fire fighting measures

- Appropriate means for extinction: all extinction devices can be used (water, foam, powder, carbon dioxide, sand, etc.).
In the case of a fire nearby, use appropriate means for extinction.

6. Accidental release measures

6.1 Personal protection:

Wear appropriate safety clothing, avoid skin and eye contact with the product. This product can make the floor slippery.

6.2 Environmental protection:

Avoid spills getting into the sewage system. Surround spills with an absorbing material.

6.3 Cleaning techniques:

Shovel the product into a clean container and remove the rest with hot water (see point 13).

7. Handling and storage

7.1 – Handling:

- Technical specifications: Not applicable
- Precautions to be taken: Not applicable
- Recommendations for use: The product is ready for use. Nothing should be added apart from other products in the Refracol range (hardener, aggregate etc.). Avoid all contact with highly concentrated acids.

7.2 – Storage:

- Technical means: Does not require any particular technical means. Products in plastic containers must not be stacked.
- Storage conditions: For good conservation, the product should be stored at room temperature. Containers must be kept sealed.
- Incompatible materials: Not applicable
- Packaging conditions: The product must be kept in its original packaging.
- Packaging materials: Factory packaging, PP or PE

8. Exposure controls/personal protection

8.1 Maximum exposure limits:

- Not applicable

8.2 Personal safety equipment:

- Respiratory protection: Not applicable
- Hand protection: Gloves
- Eye protection: Goggles
- Skin and body protection: Overalls

8.3 Exposure control linked to environmental protection:

- Not applicable

9. Physical and chemical properties

9.1 General information

- Physical state: paste
- Colour: yellowish
- Odour: none

9.2 Critical information relating to health and environment:

- pH: 10 – 11,5
- Flash point: Not applicable
- Explosive properties: Not applicable
- Combustion properties: Not applicable
- Mass per unit volume: 1,9
- Water solubility: Not applicable

9.3 Other data

- Pyroscopic strength: 1350°C

10. Stability and reactivity

- Stability: Stable under regular conditions of use.
- Hazardous reactions: None known

10.1 Conditions to be avoided:

No known hazardous reactions under regular conditions of use. See technical data sheet. Possibility of emission of quartz dust in the case of sand papering or grinding of the product after its solidification.

10.2 Materials to be avoided:

Avoid contact with highly concentrated acids.

10.3 Products with hazardous breakdown:

Not applicable.

11. Toxicological information

- High toxicity: Not applicable
- Local effects:
 - Inhaling: Not applicable
 - Skin contact: Could cause skin rashes for people with sensitive skin.
 - Eye contact: Product in paste form. Might cause irritation to eyes both through the alkaline nature of the product and mechanical properties.
 - Ingestion: Rat LD 50 > 5000 mg/kg

12. Ecological information

When diluted, sodium silicates in the product depolymerize extremely quickly to create molecules that cannot be distinguished from naturally dissolved silica. They react with ions Ca, Mg, Fe, Al and other polyvalent ions to create insoluble compounds that are the same as those that can be found in natural earth. The pH of the product is higher than limits for dumping in surface waters.

12.1 Ecotoxicity

LC50 fish: 3000 mg product/litre

12.2 Mobility

None

12.3 Persistence and degradation

Not applicable (inorganic product)

12.4 Potential of bioaccumulation

None

12.5 Various toxic effects

None known to this day

13. Disposal considerations

- Removal of waste: To be disposed of in conformity with legislation. It is recommended to neutralise the product before disposal.
- Dirty packaging: To be disposed of in conformity with legislation.
- Cleaning: Clean with hot water.
- Disposal: Packaging can be re-used or recycled after thorough cleaning.

- Comments:

The user of the product should be aware of the fact that there might be national, local or county rules, regulations and legislation concerning waste disposal that could affect this product.

14. Information concerning shipping

- International legislation: non applicable
- Comments:

Legal information given above is valid on the date when the document was drafted. However, with the possibility of having shipping laws altered and in the case of the safety document being more the 12 months old, it is recommended to check that these laws are still valid by contacting your sales office.

15. Legal information

- EC regulations:
- EEC labelling: not subject to any specific labelling.

Note:

Legal information given in this chapter covers the main specific points that can be applied to the product covered by the safety document. The basic EC articles that are mentioned could be updated and registered under national law.

It is recommended to refer to all international, national, or local regulations that could apply.

Attention is drawn to the fact that other supplementary regulations might exist.

16. Other information

Recommended use: Refractory materials.

This document completes the technical user manuals, but by no means replaces them. Information given in this document is based on our knowledge of the product concerned on the date when this version of the document was drafted. All information is given in good faith.

We draw the users attention to risks that might be taken when using a product for any use other than the one it was designed for.

This document does not exempt the user from knowing and applying all regulations concerning their activity. The user is entirely responsible for carrying out all precautions linked to the use of the product. All legal information given in this document has only been mentioned in order to help the user fulfil their obligations in terms of using hazardous products.

This list must not be considered to be complete. It does not mean that the user does not have to ensure that any other articles laying down obligations concerning the detention and use of this product exist. The user is entirely responsible for respecting all possible legislation.