



**PHI'ON**  
elements of life



## Zeolite: Application note

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### General

Phi'on produces two Zeolite products to support detoxification and bio-regulatory functions for humans and animals:

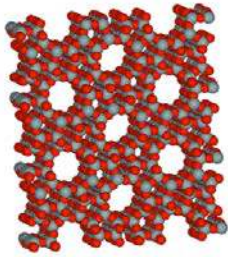
- Zeolite crème (**Azeme**)
- Activated zeolite with Humic and Fulvic acids (**Eternal**)

These two products have two primary roles:

1. Detoxification of toxic minerals and chemicals
2. Bio-regulation to rebalance mineral interactions and mineral/nutrient availability.

Natural zeolite forms where volcanic rocks and ash layers react with alkaline groundwater. Zeolites also crystallise in post-depositional environments over periods ranging from thousands to millions of years in shallow marine basins. Zeolites have a porous structure that can accommodate a wide variety of cations, such as  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Ca}^{2+}$ ,  $\text{Mg}^{2+}$  and others. These positive ions are rather loosely held and can readily be exchanged for other ions in a contact solution (ie. in a colloidal liquid form).

Zeolites are alumino-silicate members of the family of micro-porous solids known as *molecular sieves*. The term molecular sieve refers to a particular property of these materials, ie. the ability to selectively sort molecules based primarily on a size exclusion process. This is due to a very regular pore structure of molecular dimensions. The maximum size of the molecular or ionic species that can enter the pores of a zeolite is controlled by the dimensions of the channels (see image below). These are conventionally defined by the ring size of the aperture, where, for example, the term *8-ring* refers to a closed loop that is built from 8 tetrahedrally coordinated silicon (or aluminum) atoms and 8 oxygen atoms.



It is this particular crystalline structure that gives zeolite its unique properties in detoxification and to selectively absorb heavy metals. That is, zeolite has radical scavenger capabilities. The crystal lattices of zeolite become laden with pollutants that are excreted within stools from the bowel. At the same time, the zeolite ions of magnesium, calcium, potassium, etc. can be released and then bind to the body to eliminate oxidative stress and impaired metabolic functions.

### Why do people and animals need Zeolite

Current scientific opinion points to an alarming increase in the negative effects on human and animal health from environmental pollutants. Pollutants cause a breakdown in normal metabolic cycles in the body and this can lead to immune deficiencies, autoimmune diseases, tumours, depression and sleep disorders. These negative effects in the body are caused by:

- Environmental pollutants in the air (mainly from vehicle fumes, and industrial releases)
- Processed or manipulated food (eg. genetically modified foods)
- Abuse of pharmaceutical and recreation drugs
- Abuse of mineral intake
- Electro-magnetic exposure in the home and at work
- Impaired natural rhythms and internal clock (ie. not sleeping and healing at night)
- Lack of physical contact with the Earth and natural environments

Toxins may enter the body from the air, water, other liquids, medicines and food. This includes:

- In chemically sprayed fruits and vegetables (these foods can be contaminated from the use of waste water that contains chemicals including hormones, antibiotics, etc.)
- Animal meats now contain up to nine times the chemicals found in fruits and vegetables
- Most urban drinking water is contaminated with chlorine, fluoride and other chemicals (eg. insecticides, herbicides). Chlorine and fluoride can suppress iodine in the body and this can impair metabolic processes.

It is not climate change that is the major threat to man and animal wellbeing but environmental pollution that changes gene expression (as with DDT and Agent Orange) that in turn causes changes in the balance of gut biology and hence sets off disease. The primary cause of disease is the effects of the environment (including diet and loss of nutrient dense food) and not genes. This is all the more reason to grow your own food where you can guarantee its integrity, live away from urbanized areas (due to constant air pollution), buy only chemical-free (organic) food and particularly organic/biodynamic meat that is grass fed.

## Benefits of zeolite

Extensive research on the use of Zeolite has been undertaken to study the use of Silica (silicic acid) in zeolite as a bio-regulator to reverse the impairment from ingestion of pollutants. It has been found that the silica rich natural minerals of zeolite are capable of:

- Export (detoxification) of pollutant ions (eg. lead, cadmium, etc.) and import from the zeolite of essential minerals (eg, magnesium, calcium, potassium, etc.)
- Increased (300 fold) bioavailability of minerals, nutrients (vitamins, amino acids) and other bio-regulators
- Support to the balancing of gut biology and reducing the effects of pathogenic microbes (eg. viruses)
- Increased molecular sieving function as a protective shield for cells, and thereby regulating metabolism
- Increased hydration due to increased binding (400 fold) in tissue function (ie. improved skin tone and care)
- Increased binding of proteins
- Regulation of the acid-alkaline (base) balance (ie. de-acidification), including anti-inflammatory
- Normalisation of salt metabolism
- Improved regenerative functions of cells
- Increased cell and tissue growth and cell/ tissue repair (ie. inhibition of aging)
- Improved rhythm timing, including stress reducing effects
- Protection of the electrolytic and electrophysiological processes with the semiconductor features of silica
- Increased mental and physical performance.

Silicon or silicic acid ( $\text{SiO}_2$ ) in zeolite is the only known mineral to possess bio-genetic properties. That is, there is very strong evidence that it may be involved in gene expression. There are silicon dependent genes that require silicon for stimulating gene transactions via signals (communication) and perhaps gene repair. Silicon is also known to be involved in the metabolism of at least 70 different elements for assimilation in the body and preventing leakage away from essential biochemical reactions.

## Benefits of Humic and Fulvic acids

Both Humic and Fulvic acids carry DNA repair material, ability in detoxifying and repairing the liver, serving as a destroyer of bacteria, viruses, parasites, etc., chelating heavy metals like mercury out of the body and being a great immune booster.

**Phi'on** extracts Humic and Fulvic acids from lignite with a natural compound and without resorting to harsh chemicals. The whole process uses only clean, unsaturated water molecules. Everything of known and unknown value in the lignite (eg. trace minerals) is captured. The process incorporates the zeolite that is activated during the process of extraction of the Humic and Fulvic acids. The zeolite and lignite are present in the extraction process in a 1:1 ration.

Fulvic acid has proven to be a powerful organic electrolyte, serving to balance CELL LIFE. If the individual cell is restored to its normal chemical balance and electrical potential, and thereby life is then given where death and disintegration would normally occur within the cell. Fulvic acid has the outstanding ability to accomplish this objective in numerous ways.

The key benefits of Humic and Fulvic acids are:

- Promotes electro-chemical balance as a donor or receptor
- Complexes and dissolves (chelates) minerals and trace elements to a bio-available form
- Enhances nutrient availability to cells
- Transports nutrients through cell walls
- Catalyzes enzyme reactions
- Increases assimilation of trace elements
- Stimulates metabolism
- Detoxifies pollutants (chemicals and heavy metals)
- Dissolves silica (eg. in zeolite)
- Enhances cell division and elongation
- Increases metabolism of proteins
- Catalyzes vitamins within the cell

## Product application

The **Phi'on** zeolite is obtained from a zeolite mine in Australia and this zeolite is known worldwide to have a very high quality and unique crystalline structure. This zeolite is ground into a micro-fine powder before use in the **Phi'on** products.

The **Phi'on** zeolite crème (**Azeme**) can be applied to the feet, breast bone, spine or any other area where toxin removal may be required (eg. acne and other skin problems).

The **Phi'on** activated zeolite with Humic and Fulvic acids (**Eternal**) is a premium product for detoxification or heavy metal removal and can be taken orally as 5-25ml per day, preferably just before bed.

Natural liquid zeolite is not absorbed into the gastrointestinal (GI) tract and nor does it enter the blood. However, it passes through the GI, interacting at the selective exchange and sorption level while in contact with blood and lymphatic vessels of the intestinal wall, giving or taking away micro and macro-elements, and catalysing bio-chemical reactions.

The natural zeolite crème will pass through the skin layers and make contact with the blood vessels as described above.

In this respect, the **Phi'on** zeolite products are **not medicine** but rather a natural mineral supplement to support normal health and wellbeing processes.

A detox process is best managed by a qualified health practitioner. The process should be slow and may take many months, depending on age. Older people may take years. All detox processes should include a probiotic, the use of nutrient dense food and avoidance or minimization of exposure to toxins.

## Disclaimer

The information in this paper is for educational and research purposes only and it should not be used to diagnose or treat any disease or illness. This product makes no therapeutic claims, either expressed or implied that this information and/or product will cure or alleviate disease or illness, replace prescription medication, or supersede sound medical advice. Remember: consult with your qualified practitioner.

People who use these products or participate in trials of the products do so by choice.

## Product Performance

The products can achieve the outcomes described in this application note when the products are used in accordance with the prescribed directions and advice. Further information is at [www.phion.com.au](http://www.phion.com.au) and through phone (02-4842 8182) or e-mail ([info@phion.com.au](mailto:info@phion.com.au))

## Contact for Information

**Phi'on** has a range of other products to address microbial balancing, including product supplements. These products are described at [www.phion.com.au](http://www.phion.com.au). This includes the **Applications Note** for product ranges and general information on microbial balancing and case studies.