

# ADVANCED TRS FAQs

## 1. What is zeolite?

Zeolites are microporous crystalline aluminosilicates derived from the reaction of volcanic rocks, ash layers and alkaline groundwater. The Atlas of Zeolite Framework Types currently recognizes about 218 different Zeolite structures, of which 40 natural zeolites are known. Natural zeolites are listed by the USA Food and Drug Administration for human consumption (FDA GRAS Listings, 2006) and considered as non-toxic by the World Health Organization's International Agency for Research on Cancer (IARC, 1997). Moreover, Codex Alimentarius Commission (1999) lists some zeolites as a granted substance in Organic Food Production and Plant Protection.

Most of us are familiar with the zeolites used in water softener systems. The zeolite core of the water softener absorbs large amounts of metals like calcium and magnesium from the water. Periodically, the zeolite in your water softener is flushed with highly concentrated salt water to flush out the metal ions and regenerate the zeolite for more absorption. The most common forms of zeolites used in water softeners are the natural aluminosilicates, gluconites (i.e. greensand), and synthetic permutite.

FDA GRAS List. Database of Select Committee on GRAS Substances (SCOGS) Reviews. Sodium Aluminosilicates. (<http://www.accessdata.fda.gov/scripts/fcn/fcnDetailNavigation.cfm?rpt=scogsListing&id=281>).

European Food Safety Authority (EFSA) Panel on Food Contact Materials, Enzymes, Flavorings and Processing Aids (CEF). 2013a. EFSA Journal 11, 3155.

European Food Safety Authority The Panel of Additives and Products or Substances used in Animal Feed (FEEDAP). 2013b. EFSA Journal 11, 3039.

IARC., 1997a. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Supplement. Silica, Some Silicates, Coal Dust and para-Aramid Fibriils Vol 68 p. 506.

IARC., 1997b. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, "Zeolites other than Erionite" Vol 68 p.307-333.

SCOGS, 1979. Database of Select Committee on GRAS Substances (SCOGS) Reviews. Sodium Aluminosilicates. (<http://www.accessdata.fda.gov/scripts/fcn/fcnDetailNavigation.cfm?rpt=scogsLi sting&id=281>).

IARC. 1987. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Supplement 7, Overall Evaluations of Carcinogenicity: An Updating of IARe Monographs. Volumes 1 to 42, Lyon, p. 203.

## 2. What is the difference between Lab Grown Zeolite and Mined Zeolite?

Lab Grown zeolite is made in the laboratory under controlled conditions and with controlled composition. Mined zeolite is extracted from the earth in its natural form and is usually processed to remove attached impurities. Lab Grown zeolite can only contain the elements that are put in as part of the controlled process. Mined zeolite may contain trace amounts of many different kinds of elements. Of the 245 unique zeolite frameworks that have been identified by the International Zeolite Association Structure Commission, over 40 are naturally occurring. Naturally occurring zeolites are rarely pure and are contaminated to varying degrees by other minerals, metals, quartz, or other zeolites. Some of these impurities are simply adsorbed inside the zeolite's pores, while others are an integral part of the structure. Acid treatments at high temperatures can remove many of these impurities, but as more structural atoms are extracted, the integrity of the zeolite framework becomes compromised, and the important toxin-binding cages begin to collapse. At this point, the zeolite becomes increasingly less effective as regions inside the structure become blocked. In other words, increasing purity is balanced by decreasing function, and it is difficult to completely purify a naturally occurring zeolite from all its impurities and still retain full potency.

There are no such things as "different-sized zeolite molecules". The zeolite in Advanced TRS is not a molecule of zeolite, it is a cluster of multiple zeolite cages that together forms an object that is only nanometers large. It is not possible to create a structural formula for a specific particle size, instead structural formulas are created on the basis of the zeolite's unit cell, the minimum size repeating unit. This formula is the same regardless of particle size.

A representation is given by  $(\text{Na}_2, \text{K}_2, \text{Ca})_3\text{Al}_6\text{Si}_{30}\text{O}_{72}\cdot 24\text{H}_2\text{O}$ . The crystal structure of clinoptilolite has large 12-ring pores, the effective pore size of the zeolite excludes molecules larger than ~0.9 nm. Because of its wide use in agriculture and industry Clinoptilolite has been named the mineral of the 21st century by The International Mineralogical Association. Clinoptilolite has been used with success in animal feed at less than 2% by weight and for the purpose of an anti-caking flow agent.

To produce pure, synthetic clinoptilolite, silica, alumina, and alkali sources with initial Si/Al ratio from 3.0 to 5.0 are heated in an autoclave for 1–10 days at a temperature range from 120 to 195 °C. The Clinoptilolite begins to assemble in tiny crystals, whose crystallization rate and crystallinity is controlled by seeding and manipulation of the reaction conditions. Instead of direct heat, microwave, ultrasound and high pressure may be used.

Farjoo A, Sawada JA, Kuznicki SM. Manipulation of the pore size of clinoptilolite for separation of ethane from ethylene. *Chemical Engineering Science*. (2015) 138:685-688.

Kowalczyk P, Sprynskyy M, Terzyk AP, Lebedynets M, Namieśnik J, Buszewski B. Porous structure of natural and modified clinoptilolites. *J Colloid Interface Sci*. (2006) properties of natural zeolite - Clinoptilolite - As a sorbent. *Environment Protection Engineering* (2012) 39(1):139.

Moliner M, Willhammar T, Wan W, González J, Rey F, Jorda JL, Zou X, Corma A. Synthesis design and structure of a multipore zeolite with interconnected 12- and 10-MR channels. *J Am Chem Soc*. (2012) ;134(14):6473-8.

### 3. What is Clinoptilolite?

Clinoptilolite is a naturally occurring hydrated alkali aluminosilicate that is one of the most abundant minerals in the zeolite family. Its structure consists of an outer framework of silica and alumina tetrahedra, within which clusters of water molecules and exchangeable cations (e.g., calcium, potassium, sodium) migrate freely, while larger metals preferentially gather inside.

*Health A Tox Hazard Subst Environ Eng. (2012) 47(3):337-50.*

*Sakthivel A, Iida A, Komura K, Sugi Y. The beta-zeolite synthesized by dry-gel conversion method without the use of sodium hydroxide: characterization and catalytic behaviors. J Nanosci Nanotechnol. (2009) 1:475-83.*

*Li CH, Huang KL, Chi YN, Liu X, Han ZG, Shen L, Hu CW. Lanthanide-organic cation frameworks with zeolite gismondine topology and large cavities from intersected channels templated by polyoxo-metalate counterions. Inorg Chem. (2009) 48(5):2010-7.*

*Zhang D, Zhang RQ. Silica nanoarchitectures with tailored pores based on the hybrid three- and four-membered rings. J Phys Chem B. (2006) 110(31):15269-74; Mintova S, Olson NH, Valtchev V, Bein T. Mechanism of zeolite A nanocrystal growth from colloids at room temperature. Science. (1999) 283(5404):958-60.*

*(Ng TYS, Chew TL, Yeong YF, Jawad ZA, Ho CD. Zeolite RHO Synthesis Accelerated by Ultrasonic Irradiation Treatment Sci Rep (2019) 9:15062.*

*Gordina NE, Prokof'ev VY, Kul'pina YN, Petuhova NV, Gazahova SI, Hmylova OE. Effect of ultrasound on the synthesis of low-modulus zeolites from a metakaolin. Ultrasonics Sonochemistry. (2016) 33: 210-219.*

*Effects of ultrasound on the synthesis of zeolites: A review. Journal of Porous Materials. (2013) 20: 285–302.*

*Jin H, Ansari MB, Park SE. Mesoporous MFI zeolites by microwave induced assembly between sulfonic acid functionalized MFI zeolite nanoparticles and alkyltrimethylammonium cationic surfactants. Chem Commun (2011) 14:47(26):7482-4.*

*Panzarella B, Tompsett GA, Yngvesson KS, Conner WC, Microwave Synthesis of Zeolites. 2. Effect of Vessel Size, Precursor Volume, and Irradiation Method. J. Phys. Chem. B (2007), 111, 44, 12657-12667*

*Conner WC, Tompsett G, Lee KH, Yngvesson KS. Microwave Synthesis of Zeolites: 1. Reactor Engineering. J. Phys. Chem. B (2004), 108, 37: 13913-13920.*

<https://youtu.be/RZhhrlC5QDk>

### 4. What is AdvancedTRS?

AdvancedTRS contains nano-clinoptilolite, which is a smaller version of micronized clinoptilolite, with stable chemical and physical characteristics. Its main advantage comes from its tremendously higher pore accessibility and ability to penetrate more effectively to wherever toxins are found. Clinical studies reported to date do not dispute that nano-clinoptilolite is a safe and effective product. Clinoptilolite itself has been shown to:

- Bind heavy metals and over 80,000 toxins
- adjust the balance of vital nutrients like iron & calcium
- support intestinal microflora and pH
- promote healthy immune function

AdvancedTRS is a REFINED formula utilizing nanotechnology to enhance the body's natural detoxification efforts at the cellular level.

<https://www.youtube.com/watch?v=lwle4A4zx6E>

### 5. How does AdvancedTRS help the body to remove heavy metals and toxins ?

The strong attraction of zeolites for toxins is the result of the way the elements oxygen, silicon, aluminum, and alkali metals (e.g. lithium, sodium, potassium) are arranged inside the material. The Silicon-Oxygen and Aluminum-Oxygen bonds that create the nanometers-sized hollow cages inside the zeolite are bulky and rigid. The strong bonds between these elements leave the interior space within the cage with a negative electrical charge, and elements and molecular fragments with positive charge are strongly adhered, sometimes by multiple connections, making it very difficult for the captured species to escape. Zeolites, like that in Advanced TRS, have the capability of absorbing any metal found in a positively charged state. The actual amounts will depend on which element, if it is a combination of elements, and the form of these elements (i.e. if they are dissolved or part of larger metallo-organic complexes.)

Noble metals like gold and platinum are usually neutral and would have little affinity to advanced TRS.

<https://youtu.be/w6G3QM0vz8A>

Positive charge means that an object is not electrically neutral but has fewer balancing negative charges than positive charges.

The concept of charge comes from everyday observation of static cling in the laundry. The reason why you get static cling, is that the two objects, you and your laundry item, oppositely match each other electrically so that when they come together they are electrically neutralized and stick. At the microscopic level, it means one has more electrons than it needs and the other does not have enough. When the two things come together the extra electrons from one can be donated to the other object. Sometimes the electrons can't really leave their parent object so the two objects "cling" together. When you get an electrical shock on touching something, it means the extra electrons from one object have jumped across the air, into the other object, bringing the two items together. That creates a "spark" and you might feel a pain or pinch at the point closest to contact.

### 6. At what temperature should I store AdvancedTRS?

Ideally, Advanced TRS should be kept at room temperature of 50-80 F. Freezing or thawing will not alter the solution. Warm temperatures below the boiling point will not alter the solution.

### 7. Why are additional fees and charges made on my international order?

Coseva's ability to ship around the world relies upon following the laws in all the countries to which we ship our products. This requires us to state clearly and honestly the contents of each box and sales price (value) of those items. The price charged to our customers equals the sales price, applicable U.S. sales taxes, plus the cost that our fulfillment partner bills us for shipping it to you. Certain jurisdictions and in-country fulfillment companies may charge an amount greater than that charged to you by Coseva. Coseva does not charge for Value Added Taxes (VAT), customs charges or import fees for products shipped outside the United States of America. Those fees and charges may be added on inside your country if you are outside of the United States.

## 8. Why does Coseva ask for a tax identification number when I enroll as a distributor?

*Coseva is obligated to report to involved taxing authorities commissions paid under the rewards plan. In order to comply with such laws we need that information from all that might participate in the rewards plan.*

## 9. Why am I prohibited from using “Coseva” or “Advanced TRS” in my user name, website, email address, social networking page, etc.?

*“Coseva” and “Advanced TRS” are trademarks which are owned by Coseva. Use of these trademarked terms may cause confusion to the public regarding the identity of the publisher of the information associated, or may give the false impression that a Distributor is acting as a representative of the company, Coseva. Therefore, such use is prohibited by the contract that Distributors enter into with Coseva.*

## 10. Why might I not receive email communications from Coseva?

*Emails from Coseva might be filtered by your Internet Service Provider or email service provider into your Spam folder. It is imperative that you check your Spam folder to see whether any emails from Coseva have gone to that folder. You can mark emails from Coseva as “not spam” in order to train your provider’s software to allow Coseva email communications to go directly to your inbox.*

## 11. How is AdvancedTRS different from other forms of liquid zeolite on the market?

*AdvancedTRS is different in many ways: Through Coseva’s proprietary processes, the zeolite particle is nano-sized and stabilized in water which allows it to be easily assimilated. Additionally, AdvancedTRS is the purest form of clinoptilolite available because it is Lab Grown in a clean laboratory facility, using state of the art technology and science. The Lab Grown zeolite in AdvancedTRS is an improvement on nature since its synthesis occurs from only well-characterized precursors, in a clean, sterile environment.*

<https://youtu.be/bm5YtKqbeNs>

## 12. What is a nano-sized particle?

*The classic definition is that a particle is considered to be nano-size when it is less than 100 nanometers in size. This definition is a non-limiting functional definition that arose when scientists discovered unique properties in certain materials with nanometer-sized dimensions.*

[https://youtu.be/B-nrrstoO\\_E](https://youtu.be/B-nrrstoO_E)

## 13. What is the size of the zeolite particles in AdvancedTRS?

*The particle sizes in AdvancedTRS are between 10 and 250 nanometers, with the most common size somewhere in-between those two values.. The active site, or pore size is approximately 0.9 nanometers.*

[https://youtu.be/sA4saOn\\_ykk](https://youtu.be/sA4saOn_ykk)

## 14. Are any of the ingredients used in Advanced TRS sourced outside of the United States?

No.

## 15. Are there any animal products contained in Advanced TRS?

No.

## 16. How long after ingesting AdvancedTRS does the zeolite remain in the body?

*It depends on the individual, as each person’s digestive system works a little differently. In the 1980’s, Mayo Clinic researchers measured digestion time in 21 healthy people. Total transit time, from eating to elimination in stool, averaged 53 hours. The average transit time through just the large intestine (colon) was 40 hours, with significant difference between men and women: 33 hours for men, 47 hours for women.*

*Taking AdvancedTRS every day will result in a steady state level of zeolite in your digestive tract. Once you stop taking AdvancedTRS it takes a couple days for Advanced TRS to fully clear out.*

*Metcalf AM, et al. Simplified assessment of segmental colonic transit. Gastroenterology. 1987; 92:40.*

<https://youtu.be/VUr842PKWmg>

## 17. What is the best time of day to take AdvancedTRS?

*It is recommended that you take it morning and night. You can also split the serving size into 4 or 5 smaller servings.*

## 18. What physical effects might I experience when using a detoxification product?

*Detoxification symptoms may include: chills, hot flushes, fever, food cravings, pimples or skin rashes, bad breath, mucous discharges, diarrhea, headaches, tiredness, nausea, muscular aches, weight loss, moodiness and lack of concentration. People have reported increased urination frequency, change in digestive rhythm, and an overall improved sense of well-being. It should be noted that adverse detoxification symptoms will not be experienced by all consumers. When they do, they can vary in intensity. In most instances, detoxification symptoms do not last longer than 2 weeks.*

## 19. Is AdvancedTRS safe to use while breastfeeding?

*Breast milk is glandular excretion of fluid with high fat content and it is not likely that zeolite of any form will be able to be excreted in this manner. There is no reason to believe that AdvancedTRS will have an effect on breast milk.*

## 20. Is AdvancedTRS Detox safe to use while pregnant?

Coseva does not engage in the diagnosis or treatment of diseases. Coseva cannot recommend specific uses for Advanced TRS, other than in assisting the body in its normal health maintenance processes. Coseva always recommends that the individual consult their physician before beginning use of a supplement and to advise their physician of the use of any and all supplements used. Advanced TRS is not a medicine. There is no documented reason to believe that AdvancedTRS will not be safe for use while pregnant, however, pregnancy is a vulnerable state and the decision to use supplements needs to be made by each individual in consultation with their physician.

## 21. How do you evaluate the quality and efficiency of AdvancedTRS?

The quality of our product is evaluated at the time of manufacture when each ingredient is screened for purity and quality. During the manufacture we have checkpoints which can be monitored in order to ensure that the process is taking place correctly, and no contamination or destruction is occurring. Once bottled, we routinely sample finished products for purity and effectiveness. Effectiveness is measured in controlled laboratory experiments. It should be noted that the results obtained in the laboratory are still a measure of the quality of the product. The effectiveness in the body depends on many other factors, including, the individual, pre-existing conditions, the type and degree of toxicity present. Results in each user are expected to vary, and you should always consult with your physician, before and during the use of Advanced TRS to be sure you are getting the results you want.

## 22. What is the pH at which metals will disassociate from AdvancedTRS and what is the ideal urinary pH?

Urinary pH should be between 4.5 to 8.0. Usually the body does a good job maintaining Ph within these averages. A low urine pH may be due to diabetic ketoacidosis or diarrhea. If the pH drops below 4.5 there is a chance that metal will be freed. A low pH means there are a lot of H<sup>+</sup> ions present and by sheer number they will re-equilibrate with what is in the zeolite. However, significant release of metal requires pH closer to 2. If your urine pH is already 4.5 you have more serious health issues, and AdvancedTRS should be taken only after you have gotten those under control with the assistance of your physician. pH values even lower would signify an emergency condition that your physician must address immediately. Your doctor should monitor your urine pH regularly as you begin to use AdvancedTRS.

## 23. Does AdvancedTRS release aluminum or toxins into the body?

A review from 2019 summarizes the latest research. Ingested zeolite has been shown to have many positive effects and no obvious negative effects when taken at recommended dosages. No worries about Aluminum leaching have been raised. Similarly for Si(OH)<sub>4</sub>. This a chemical reagent that is used to make silica glass and is not a part of the zeolite.

In clinoptillolite Si is indirectly bonded to Al in all places in the zeolite by an oxygen bridge (Al-O)<sub>2</sub>-Si-(O-Al)<sub>2</sub>. This bonding is very strong and the likelihood the aluminum is replaced by oxygen is virtually zero.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6277462/>

## 24. Is AdvancedTRS “mineral water”?

The definition of Mineral water is - water containing dissolved mineral salts, or gases (such as carbon dioxide). The zeolite used in Advanced TRS is not “dissolved” - it is suspended in its intact form as a nano-sized fragment.

“Dissolved” would mean that the individual elements making up the zeolite separate and become free-floating. This does not happen. The zeolite nano-fragments remain intact so that they can be available to absorb toxins. The water used to make the products is sterile filtered, purified water with a high electrical resistivity, meaning there are few, if any, dissolved ions in it.

## 25. Is there a protocol on how to use AdvancedTRS in conjunction with vaccinations?

Coseva does not engage in the diagnosis or treatment of diseases. Coseva cannot recommend specific uses for Advanced TRS, other than in assisting the body in its normal health maintenance processes. Coseva always recommends that the individual consult their physician before beginning use of a supplement and to advise their physician of the use of any and all supplements.

There are two types of mercury to which people may be exposed in vaccinations — methylmercury and ethylmercury. Methylmercury is the type of mercury found in certain kinds of fish. At high exposure levels methylmercury can be toxic. In the United States, federal guidelines keep as much methylmercury as possible out of the environment and food, but over a lifetime, everyone is exposed to some methylmercury.

Thimerosal is a mercury-containing compound, which prevents the growth of bacteria in products. Thimerosal was taken out of childhood vaccines in the United States in 2001. Measles, mumps, and rubella (MMR) vaccines do not and never did contain thimerosal. Varicella (chickenpox), inactivated polio (IPV), and pneumococcal conjugate vaccines have also never contained thimerosal.

When thimerosal enters the body, it breaks down to ethylmercury and thiosalicylate, which are readily eliminated. Influenza (flu) vaccines are currently available in both thimerosal-containing (for multi-dose vaccine vials) and thimerosal-free versions.

If you have been administered a vaccine with thimerosal in it, AdvancedTRS could help clear ethyl mercury because the net positive charge on this molecule will be attracted to the cages in the zeolite. The zeolite will not harm the effectiveness of the vaccine.

## 26. Why might I have a metallic taste in my mouth about an hour after using AdvancedTRS?

Coseva cannot give medical advice, and you should always consult your physician before taking any supplement - including AdvancedTRS.

Metallic taste, or altered taste that comes on in an hour or longer after taking a supplement or eating a food, may have something to do with changes in your oral microbiome or stomach acids.

Advanced TRS is bonding with toxins in your mouth and digestive system. Your oral microbiome and stomach have gotten used to the old conditions and have to adjust to the new healthier conditions. It is possible these symptoms are related to that process.

If the symptoms are concerning, your doctor can help you understand and control them.

## 27. Would AdvancedTRS help with a poison ivy reaction?

Poison Ivy is an external histamine reaction to the plant oils. Taking AdvancedTRS orally is not likely to have any impact. However, it is possible that spraying AdvancedTRS directly on the skin could reduce the response by absorbing whatever is at the skin surface causing the reaction. It would be a safe thing to try. It's not the intended method of using AdvancedTRS, however.

## 28. Does AdvancedTRS help to remove radiation from my body after a CAT scan or a mammography?

A CAT scan involves exposure to radiation at levels slightly higher than normal x-rays. The effective radiation dose from this procedure is about 10 mSv, which is about the same the average person receives from background radiation (i.e. from the sun) in 3 years.

Radiation does not stay in your body. As soon as the machine is turned off, there is no more radiation. However, while the radiation is on, it can cause reactions inside your tissues and inside your cells. What this does, is create things like free radicals, that react with other things in your tissues.

These free affected radical-chemical compounds can cause irritation, immune reactions (redness, rash etc.), headaches etc.

X-rays are absorbed by metal. Although zeolite is not a metal (is not electrically conductive), it does contain aluminosilicates which have lots of electron density and so will absorb energy from the X-ray or mammogram. It depends on what part of your body you are having the CAT scan image done. If it is the liver or kidney, we recommend you stop taking zeolite a few days before your scan, and then you can safely resume after your scan is complete. In this way you can be completely sure there is no image distortion due to zeolite as your body is processing it for removal from your body.

As with all X-rays, mammograms use doses of ionizing radiation to create images. As soon as the machine is turned off, there is no more radiation. However, while the radiation is on, it can create chemistry inside your tissues and inside your cells. What this does, is create things like free radicals, which can react with other things in your tissues. These free radical-altered chemicals can cause irritation, immune reactions (redness, rash etc.), headaches etc.

## 29. Can AdvancedTRS assist the normal healthy processes of the body in the removal of oxalic acid, as determined by an OAT test? Can it also assist the normal healthy processes of the body to remove fulvic acid? Can it be used in a filtered water tank?

Coseva does not engage in the diagnosis or treatment of diseases. Coseva cannot recommend specific uses for Advanced TRS, other than in assisting the body in its normal health maintenance processes. Coseva always recommends that the individual consult their physician before beginning use of a supplement and to advise their physician of the use of any and all supplements by the individual. Advanced TRS is not a medicine.

The calcium oxalate molecule is a small molecule that could fit in the absorptive centers of AdvancedTRS. Fulvic acid is also a strong chelator of metals and would assist in AdvancedTRS's function. However, if it is put into the filtered water tank, there is a chance you may be drinking a small amount of fulvic-acid-metal complexes. While fulvic acid is safe, it is acting as a concentrator of metal in the filtered water tank and you may be exposing

yourself to metals more than expected. We would recommend having your filtered water tested for metals and fulvic acid to be sure you know the system is working properly.

## 30. Is the plastic bottle used for AdvancedTRS leaking toxins into the product?

Advanced TRS bottles are made from PET (polyethylene terephthalate). PET is of the polyester family and does not contain BPA. It contains no chemicals or substances required to be disclosed by California's stringent Proposition 65. There is no organ toxicity with PET and it is considered to be stable.

<https://www.britannica.com/science/polyethylene-terephthalate>

## 31. Do I need to drink water with each serving of AdvancedTRS?

While not necessary, it is recommended to drink plenty of pure water as part of a healthy diet.

## 32. Would AdvancedTRS be effective if sprayed into juice and then consumed?

It may reduce effectiveness if the juice already contains heavy metals or toxins being absorbed by the clinoptilolite before it has the opportunity to enter the digestive system. Most good quality juices do not have any toxic metals. Otherwise, it should have no adverse effect upon the zeolite activity.

## 33. How does AdvancedTRS not absorb essential nutrients from the body?

Advanced TRS preferentially attaches to large metallic ions that are toxic to the human body. When presented with a choice between small, more weakly attaching ions like calcium, magnesium and zinc, and larger, more strongly binding ions like mercury or lead, advanced TRS will prefer the latter. As advanced TRS tries to restore a healthy balanced physiological status, it is also in balance with all the ions present in your body, both good, and bad, with a strong preference for collecting the bad. It is important you maintain a healthy diet with plenty of vitamins and minerals, adequate water, exercise, and continue any medications your doctor has prescribed. Maintaining a healthy daily routine helps AdvancedTRS do its job better.

## 34. How are some minerals not bound to AdvancedTRS even though those minerals have a positive ionic charge?

As soon as a body identifies a mineral as beneficial, the body brings in other elements to change that raw mineral to another compound (usually a salt) which effectively has a neutral ionic charge. Consequently, the mineral is unavailable for exchange with zeolite. For example, the body has ferritin, not pure iron. Also, the body does not have magnesium (which is very reactive and volatile) but rather magnesium citrate, calcite and so on. Additionally, the body stores forms of minerals in ways that make it difficult for zeolites to remove them.

The body only converts elements back to ionic form when the cell is ready to use the mineral. That is done within the individual cell and is a very quick process. Again, it is not conducive for removal via zeolite. If the mineral is in excess or is for any reason not converted to a salt for use by the body, then the zeolite may remove that excess.

### 35. Is AdvancedTRS safe for children?

While Advanced TRS is generally regarded as safe for use, a parent or guardian should consult with a pediatrician before administering to children under the age of three (3) years old.

As a rule of thumb, the usage rate is based on a person who weighs 150 pounds. Therefore, 150 pounds divided by 5 sprays is equal to 30 pounds per spray. For a child below 30 pounds, start with one spray and observe what happens.

### 36. Why is AdvancedTRS created with a Lab Grown clinoptilolite zeolite? Why not use a natural clinoptilolite zeolite?

Using a Lab Grown clinoptilolite allows Coseva to produce one of the purest detox products on the market. Nanosizing gives more accessible binding capacity and increased effectiveness. Natural clinoptilolite requires an additional acid cleansing process which is imperfect and can also damage the effectiveness of this material.

### 37. What are the ingredients used to make AdvancedTRS? What steps are taken to ensure purity?

Advanced TRS is made with pure Lab Grown lab-grade clinoptilolite. Lab Grown clinoptilolite starts with a clean, high quality source of the atoms needed to form the aluminosilicate structure. These starting materials are tested for impurities and those meeting our strict standards are used to make the product. The manufacturing occurs in sanitized, atmospherically controlled conditions, in equipment dedicated for Advanced TRS manufacture. Each batch of Lab Grown clinoptilolite is tested for purity before mixing with ultrapure, medical grade water. The size of the particles is measured using an advanced, high resolution microscope, and an advanced, light scattering method which reveals not only the intrinsic particle size of advanced TRS but also how it behaves in the product. Using a combination of these methods, we also test the shelf-stability of the product, and how it might behave in other biological fluids.

### 38. How is AdvancedTRS created without affecting the performance of the zeolite?

Lab Grown zeolites have been produced using only the purest ingredients as well as qualified and quantified since the 1970s. Producing is straightforward but expensive. Coseva has chosen a Lab Grown zeolite because natural zeolites are naturally contaminated by toxins in the environment. Coseva is dedicated to providing a product that is completely pure. It controls and monitors the manufacturing process with an exceptional level of care and commitment.

### 39. Is the nano-sized zeolite large enough to attract, capture and remove toxins?

There are several studies that show the effectiveness of nano-sized zeolite. These are listed in the reference section of the AdvancedTRS White Paper. More can be found at [www.pubmed.gov](http://www.pubmed.gov). The overall effectiveness and safety of AdvancedTRS is due to the reality that one serving will not do a complete detox. Over time, consistently taking this product will assist the body to remove toxins safely, gently and without the typical effects of harsh medical chelation agents.

### 40. Does AdvancedTRS assist the body to remove Talc from the body?

Talc is a clay mineral composed of hydrated magnesium silicate with the chemical formula  $Mg_3Si_4O_{10}(OH)_2$ . Talc in powdered form, often in combination with corn starch, is widely used as baby powder. In principle if it is disintegrating in your digestive system and releasing Mg or Si, then there is some potential for AdvancedTRS to pick up some of these ions. However, AdvancedTRS will not do anything with an intact particle of talc, regardless of its size.

### 41. Is AdvancedTRS easier on the body than medical chelation treatments?

The short answer is "yes" because AdvancedTRS is completely passive and is not biologically active in the body. Medical chelation agents are very biologically active and remove metals by an active chemical process. Zeolite is biologically inert and uses cationic exchange for capturing metals and toxins. The AdvancedTRS zeolite is delivered with a weak bond to a magnesium molecule; the magnesium exchanges easily to make a much stronger bond with a positively charged toxin. This is also the reason zeolites do not redistribute heavy metals.

### 42. Could AdvancedTRS cause heavy metals or other included materials, such as dental mercury fillings, other dental work, breast implants or artificial joints to leach into the body?

No, AdvancedTRS will not cause leaching of metals into the body from items such as fillings, teeth braces, artificial joints, breast implants, etc. These materials are strongly chemically bound, which is why they last as long as they do. They will not attract zeolite to bond with them for removal. Should these artificial implants of any form leach into the body then continued use of AdvancedTRS will assist the body in the natural removal of positively charged metals.

### 43. Why does AdvancedTRS not show a binding agent listed on the label? Don't all zeolite products need a binding agent?

Advanced TRS does not require any additional chemicals to remain suspended in water. Its small size and hydrophilic surface characteristics allow it to remain suspended in water indefinitely. Because of the purity of the Lab Grown starting materials, and sanitized methods employed throughout manufacture and bottling, advanced TRS, moreover, does not need any added organic molecules as stabilizers nor any added preservatives. When using advanced TRS at home, use common sense to keep the bottle and spray cap clean between uses. Rinsing with distilled water is sufficient to remove any dirt or dust that may collect on the outside of the container. To remove any oils from your fingertips, simply wipe the bottle and spray head with an alcohol wipe.

### 44. Does AdvancedTRS include any allergens like gluten, nuts, dairy, etc.?

The label clearly shows the ingredients. - Clinoptilolite and Purified Water. There is no gluten, nuts, dairy, or protein based compounds, etc. involved with the manufacture of Advanced TRS. Allergic reactions are usually associated with a protein based compound. AdvancedTRS does not contain any protein based compounds.

#### 45. Are there any contraindications of taking AdvancedTRS with supplements/medications such as those containing lithium or platinum?

Coseva does not engage in the diagnosis or treatment of illnesses. AdvancedTRS is not medicine. People have found some positive effects from using our product, but you should always consult with your physician before using any product for the treatment of a medical condition.

Specific questions regarding contraindications should be directed to your personal health care professional.

Medications containing positively charged metals may be adversely affected due to removal by using the AdvancedTRS. Consult your health care practitioner who prescribes these medications before using AdvancedTRS. If medications were "prescribed" by a physician then that doctor would have to notify you if there are contraindications based on the characteristics of that drug. If the medication is over-the-counter or a supplement then separating them from AdvancedTRS by four to six hours may be advisable. It all depends on the form of the supplement and what it turns into in the body. If components of the supplement have a positive charge then the zeolite may bond to it - otherwise there should not be a problem.

#### 46. Will AdvancedTRS remove the zinc, iodine and silver supplements I take?

Iodine is negatively charged and will not bind to AdvancedTRS clinoptilolite - which is negatively charged. Zinc and silver - being positively charged - may have some affinity for the zeolite.

Coseva recommends that micronutrient minerals be taken at least 4 hours before or after the TRS. Once in the body, minerals which are essential for health, are very quickly bonded to other substances which neutralize any ionic charge and therefore preserve them for use by the body. Pollutants, like heavy metals which are not useful for health, are not protected by the body and can therefore be picked up by the zeolite. The 4 hour dose interval is to allow the body to protect what it needs.

Iodine, which is not a metal, will be used by the body and the zinc will also be protected by the body. The silver (elemental), as a noble metal, has no charge to attract the zeolite so the answer is that you will have no problem with the TRS and the supplements you mention.

#### 47. Does AdvancedTRS affect the efficacy of other dietary supplements?

AdvancedTRS is not expected to bind to any commonly taken vitamins or minerals.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6277462/>

#### 48. Does AdvancedTRS assist the body to remove plastics?

A major toxin to leach from some plastics is bisphenol A (BPA - which is not contained in the AdvancedTRS bottle). This is a small molecule that potentially can get trapped by the zeolite. But, in the presence of charged metal toxins, the zeolite will prefer to bind to the metal toxins.

#### 49. Is AdvancedTRS Detox effective at eliminating the toxins from Lyme (Borellia infection) disease?

Coseva does not engage in the diagnosis or treatment of illnesses. AdvancedTRS is not medicine. You should always consult with your physician before using any product for the treatment of a medical condition.

Advanced TRS is not effective against Lyme Disease.

#### 50. Will AdvancedTRS interfere with the effectiveness of antibiotics?

Please consult with your physician for possible medication interactions. We have no evidence to believe that AdvancedTRS will affect antibiotic effectiveness. Coseva does not engage in the diagnosis or treatment of illnesses. AdvancedTRS is not medicine. You should always consult with your physician before using any product for the treatment of a medical condition.

#### 51. Is it okay to use Advanced TRS and MSM organic sulfur crystals at the same time?

Methylsulfonylmethane (MSM) is an organosulfur compound with the formula  $(CH_3)_2SO_2$ . The sulfonyl functional group ( $SO_2$ ) is considered relatively inert chemically. It will not have any special attraction to the zeolite in AdvancedTRS.

Since MSM is an important supplement for some people it is recommended that there be a space of 4 to 6 hours between taking the two products.

#### 52. Would AdvancedTRS be able to bond with nitrous oxide?

Nitric oxide is a free radical, ( $\cdot N=O$  or  $\cdot NO$ ), produced by cells during their metabolism. It is very reactive and quickly reacts with molecules in the body. Nitric oxide regulates blood pressure and also several biochemical cycles. While it is small enough to fit into the zeolite pores, it is not positively charged - so the attraction is weak.

#### 53. Can AdvancedTRS be used to assist the body to clear the effects of fungal infection?

Advanced TRS should be capable of removing certain kinds of charged, small molecule toxins released by fungi. The efficacy of this process has not been clinically evaluated.

#### 54. Will AdvancedTRS interfere with the effectiveness of a Copper non-hormonal IUD?

No. Copper IUDs work as a physical barrier to conception, and AdvancedTRS has no impact on this function.

## 55. Is it possible that AdvancedTRS causes redistribution of metals in the body by picking up metals and dropping them elsewhere?

Your body tries its best to keep itself in a balanced condition called homeostasis. Metals in your body exist in different reservoirs like various organ systems, blood, kidneys, liver, spleen, lungs, brain, etc.

*In each of these places some metal atoms may be inside cells, complexed to proteins, or free floating. As long as you keep the total amount of metal constant each day, each reservoir will remain stable.*

*If you do something to disrupt the balance, for example, by introducing into your body a new, better reservoir like zeolite in your digestive system, all the other reservoirs will respond and try to reach a new equilibrium with the new location.*

*Over time, the levels in the original reservoirs which may be the cause of symptoms will begin to be reduced. How long it takes will depend on the individual. Again, you can't expect AdvancedTRS or any other zeolite to completely rebalance the metal reservoirs in your body after a single ingestion. Depending on genetics, it may take longer for some people than others.*

## 56. Is it safe to use AdvancedTRS while you have unhealthy kidney function?

Coseva does not engage in the diagnosis or treatment of diseases. Coseva cannot recommend specific uses for AdvancedTRS, other than in assisting the body in its normal healthy processes. Coseva always recommends that the individual consult with their treating physician before beginning use of a supplement and to advise their physician of the use of any and all supplements. AdvancedTRS is not medicine.

*People with chronic kidney disease or kidney failure have problems excreting toxins from the body. While zeolite helps relieve the body-burden of toxins, the body still has to process the zeolite particles for excretion. Your doctor may want to monitor your kidney function more carefully while you are taking Advanced TRS, and will advise if dose reduction or complete cessation is right for you.*

*Make sure you consult your doctor before taking AdvancedTRS so that the right course of treatment can be developed for you.*

## 57. Does AdvancedTRS help with neuropathy?

Coseva does not engage in the diagnosis or treatment of diseases. Coseva cannot recommend specific uses for AdvancedTRS, other than in assisting the body in its normal healthy processes. Coseva always recommends that the individual consult a physician before beginning use of a supplement and to advise their physician of the use of any and all supplements. Advanced TRS is not medicine. Not being a medicine, AdvancedTRS is not designed specifically to treat neuropathy or any other specific disease or illness. More information on this condition may be found at:

<https://www.mayoclinic.org/diseases-conditions/peripheral-neuropathy/symptoms-causes/svc-20352061>

## 58. If metal ions can be encapsulated or captured by the zeolite, can you still measure the amount of metals in the urine?

*Metals absorbed in zeolite are not detectable directly and have to be released from the zeolite by dissolving the zeolite frame and then measured using a technique like Inductively Coupled Plasma-Mass Spectrometry.*

*It is not clear whether 100% of the Advanced TRS zeolite is excreted in the urine. You should not rely on orally administered Advanced TRS to act as a provoker of metal release into the urine. There is no data on it.*

## 59. Does AdvancedTRS interact with histamines?

*Histamine is a small molecule, however it is not negatively charged and so has low affinity for zeolite of any kind including Advanced TRS. Advanced TRS was not designed to interact with histamines.*

## 60. Does AdvancedTRS assist the body in the removal of ammonia and glyphosate?

## 61. Should a person with organ transplant use a zeolite (clinoptilolite) product?