



It's  
Not  
Your  
Imagination.

**CHEMICAL SENSITIVITY IS REAL.**

*COURTESY OF THE INDUSTRIAL REVOLUTION, OUR ENVIRONMENT HAS BECOME A STEW OF FOREIGN CHEMICALS. For some people suffering the malaise, lack of focus, and drained feeling associated with chemical sensitivities, home is the only sanctuary from this onslaught. For others, not even home is safe. We at Source Naturals take this threat very seriously. That's why we created CHEM-DEFENSE.*



SOURCE NATURALS™

**Chem-  
Defense™**

SOURCE



NATURALS™

*Strategies for Wellness™*

Source Naturals' CHEM-DEFENSE is a potent combination of Molybdenum, Glutathione, and Coenzymated B-2, nutrients which research has shown may help break down and dispel harmful chemicals from the body. And CHEM-DEFENSE is sublingual — it dissolves under the tongue so it goes directly into your bloodstream, where it can be delivered to your system, fast.

### A Modern Problem

A major problem has hit America in the late 20th century that is more far reaching than most people are aware — chemical sensitivity. In fact, some studies indicate that 1 out of 3 Americans may be afflicted with chemical sensitivities. In the past century, modern organic chemistry has synthesized and released into the world an estimated 300,000 xenobiotic (foreign to our normal biology) chemicals. The food processing and food growing industries put an approximate 10,000 xenobiotic chemicals into our food supply alone. These chemicals can be found in common items such as cleaning fluids, dry-cleaning compounds, glues, cigarette smoke, perfume, building materials and processed foods.

Chemical sensitivity is the result of impairment or inadequacy of the body's natural detoxification systems, allowing excessive levels of harmful, xenobiotic chemicals to accumulate in the body, and the results are often devastating.

In sensitive people, artificial chemicals can cause an incredible range of problems: "fogginess" and lack of focus, emotional distress, fatigue, and more. The parts of the body that are most affected can vary from person to person.

Some of the worst offenders are the aldehydes. The most infamous of these is formaldehyde (found in such widely used items as permanent press clothing, particle board, paints and upholsteries). The other common culprit is acetalde-

hyde (produced by Candida overgrowth or from alcohol consumption).

### The Secret to CHEM-DEFENSE'S Power is Molybdenum

Fortunately, nature has provided the body with a special aldehyde detoxification pathway: an enzyme called aldehyde oxidase (ADO). ADO is activated by one of the coenzyme forms of Vitamin B2, Flavin Adenine Dinucleotide (FAD), and the trace mineral Molybdenum.

Unfortunately, this enzymatic pathway can become impaired due to overexposure to foreign chemicals. In addition, aging, nutritional deficiencies, genetics and general poor health can greatly diminish the body's production of these enzymes, causing a toxic buildup of aldehydes, leaving many individuals vulnerable.

Current nutritional research has revealed that supplementing the diet with Molybdenum and Coenzyme B-2, both found in CHEM-DEFENSE, can increase levels of the important enzyme ADO, helping to dispel toxins from the body.

A study published in the *Townsend Letter for Doctors* confirms the benefits of a sublingually administered 300 mcg dose (100 mcg three times a day) of Molybdenum. It was found that on the average, about 50-65% of the various symptoms of chemical sensitivity — including fogginess and other discomforts — were alleviated at least to some degree.

Molybdenum is also important for several other enzymes, including xanthine oxidase, and most importantly, sulfite oxidase. Sulfite oxidase is responsible for breaking down sulfites, chemicals widely used as preservatives in wines, salad bars, produce, and other foods. Sulfites are a common culprit in chemical sensitivity reactions. In fact, by the 1980's, it was conservatively estimated that 5,000,000 (five million) Americans were sensitive to sulfites and experienced discomfort upon ingestion. Sulfite oxidase is also important in the sulfation of various compounds, especially in the brain. This is particularly important, as the brain is often dramatically affected during bouts of chemical sensitivity.

According to the Nutrition Desk Reference, the amount of Molybdenum required daily for people is 100 mcg to 500 mcg. It also states that the amount of Molybdenum in food can vary tremendously, depending on crop soil levels. Low levels are not at all uncommon, and they are lessened even further by commercial farming practices that utilize synthetic fertilizers which do not put Molybdenum back into the soil. The result? The typical American diet does not provide adequate Molybdenum.

The form of Molybdenum included in CHEM-DEFENSE is Molybdenum Aspartate-Citrate, Molybdenum bound to the cellular metabolites Aspartic Acid and Citric Acid. This has been shown to be the most bioactive form available by experts in mineral metabolism.

### Glutathione in its Most Bioavailable Form

Ultimately, the one organ that must cope with and attempt to relieve the

body of toxic chemicals is the liver, often referred to by nutritionists as "the body's most overburdened organ." To accomplish this, the liver must rely heavily on Glutathione, a tripeptide (three amino acids bound together).

The Glutathione in CHEM-DEFENSE will help the liver to produce adequate levels of the important enzymes glutathione peroxidase (GSHpx) and glutathione S-transferase (GSH-S), enzymes that are essential for breaking down and disposing of foreign chemicals in the body.

Glutathione peroxidase (GSHpx) helps to break down hydrogen peroxide, a medium-level toxin which is found in many xenobiotic chemicals. GSHpx also prevents cell damage caused by fatty acid oxidation, which threatens the integrity of cell membranes.

Glutathione is very fragile. In fact, when taken orally, it is often destroyed by protein-digesting enzymes in the stomach. As CHEM-DEFENSE is in sublingual form, it bypasses the digestive process and goes straight into the bloodstream, allowing for maximum activity.

### Coenzyme B2 — The "Recycling" Nutrient

Once Glutathione is used in the body for its detoxification functions, it becomes oxidized Glutathione, meaning it has been "used up." Fortunately, the human body can "recycle" oxidized Glutathione and return it to its beneficial reduced (active) state. This process is made possible by a coenzyme form of Vitamin B2 (FAD), which is present in CHEM-DEFENSE.

## Sublingual Delivery for Maximum Benefit

Many nutrients, when taken orally, are never completely absorbed into the bloodstream, or not absorbed at all! Because this formula is in sublingual form, the nutrients in CHEM-DEFENSE are absorbed directly into the bloodstream through the blood vessels under the tongue and in the cheeks, assuring maximum bioavailability and benefit.

In America today, as foreign chemicals continue to be released into the environment on an uncontrolled basis, people continue to experience chemical sensitivities for which there appears to be no solution. Now there is. Source Naturals CHEM-DEFENSE combines the most bioavailable forms of key antioxidant nutrients that are not only

powerful in and of themselves, but work together synergistically to address the problems associated with chemical sensitivities. As with all of their other products, Source Naturals has taken special care to create a product that is all natural, hypo-allergenic, and sugar-free. CHEM-DEFENSE sublingual is available in two delicious flavors — natural peppermint, and for people on homeopathic regimens who prefer an alternative to peppermint, natural orange flavor.

**Let's face it — life in the modern world is a battle for your health. Arm yourself with a powerful weapon: Source Naturals CHEM-DEFENSE.**



## References

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