

# agel<sup>®</sup>



PRODUCT PROFILE

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## PRODUCT PROFILES

*who we are...*

### Agel Vision

The Global Leader in Suspension Gel Technology based Nutritional Products

### Agel Purpose

AGEL and our Product Profiles in *Innovation, Research, Quality and Safety* provide the necessary components for a confident, well-informed community of empowered team members through:

- Safe and beneficial products
- Clear and organized information
- Compliance to well-defined systems



# Marketing Summary

*Cell Fuel*

## The Master Antioxidant

For thousands of years explorers have scoured the globe searching for that one elusive substance that would prolong life and restore youth. Modern science has since discovered that the very substance others have searched for is already here. It is called Glutathione and it resides in every cell in your body. There is only one problem, as we age and when we get sick Glutathione levels decrease. Enter Agel GSH, GSH helps support the bodys Glutathione levels. Longevity and health start on the cellular level, which is exactly where GSH works. GSH was designed to support glutathione levels in your cells. Glutathione is extremely important for maintaining intracellular health because of its strong antioxidant effects, the ability to remove chemicals, and pollutants on a cellular level. By regenerating glutathione levels and attacking the problem at the source GSH is a powerful ally that keeps you feeling healthy and vibrant.\*

## Benefits include\*

- Superior protection of your cells, tissue structures and organs keeping you healthy and vibrant.
- Supports normal cellular detoxification.
- Promotes recovery and athletic performance.
- Supports the immune system on a cellular level.
- Works synergistically with Agel's other products to maximize your potential.

# Scientific Summary

## & CURRENT USE

### What is Glutathione?

Glutathione is a molecule produced and found in each living cell of your body.

It is responsible for:

- Increasing vitality by rejuvenating damaged cells and repairing DNA.
- Keeping you healthy because it is the master antioxidant, the only one found in every cell in the body.
- Cleansing the body by removing heavy metals, pollutants and foreign bodies.

**B**ottom line, Glutathione is a critical component for healthy cells, tissue, body systems and overall health. Studies have shown that as the body ages or enters a disease state Glutathione levels can become significantly depleted. Additionally studies have shown that taking Glutathione directly does not raise Glutathione levels in the cells.

Based on all the research the best way to support Glutathione levels in the body is to ingest the components needed to create Glutathione, which include: cysteine, glycine and glutamine. These compounds are not only the building blocks for Glutathione but help create a “glutathione production state” within the body.

Enter Agel GSH. GSH was specifically designed to include all the building blocks of Glutathione and the ingredients needed to maintain the body’s production

of Glutathione. With scientifically proven ingredients coupled with the revolutionary Suspension Gel delivery system, GSH is unmatched at assisting the body with Glutathione production.

Every single ingredient in GSH has incredible positive effects on the body and each ingredient plays a pivotal role in the production of Glutathione, but when brought together the synergistic effects are amplified. The following outlines why each ingredient was chosen and how it can support your Glutathione production and your life.

Safflower seed oil has been in use for thousands of years. Its early use was primarily restricted to cooking and folk medicine. However, its impressive nutritional benefits in relation to supporting glutathione production have been clinically proven.

Glycine is one of the 20 most common standard amino acids and is necessary for normal human function and protein production. Glycine is a critical ingredient in Glutathione production and is the simplest of all the naturally-occurring amino acids.

N-Acetyl L-Cysteine is an important sulfur-based amino acid that is necessary for the production of glutathione. It is the most efficient of all the dietary ingredients for Glutathione production. It is also the more bioavailable, acetylated form of the amino acid L-Cysteine.

While L-Cysteine can be found in many different food sources (primarily animal) that are part of a normal diet, the more bioavailable N-Acetyl L-Cysteine cannot, so it must be obtained through supplementation.

Vitamin C also plays an important role in glutathione production because it maximizes the ability of N-Acetyl L-Cysteine to move from one cell to the next. It also assists in conserving already existing glutathione reserves within the cells. Vitamin C is one of the most well-known vitamins in existence today.

N-Acetyl D-Glucosamine is an acetylated derivative of glucose, and is commonly found in dietary supplements. N-Acetyl D-Glucosamine is a key compound in many of the body structures such as tendons, ligaments, blood vessels and more. It also plays an important role in supporting the body's ability to create and store glutathione.

*Cordyceps sinensis* Mycelium Extract is a fungus complex that is highly prized by practitioners of traditional folk medicines. Cordyceps can have a broad range of pharmacological and biological actions on the body, including anti-oxidation activity to support glutathione. Modern research indicates that the *Cordyceps sinensis* is beneficial for the heart, lung, liver, renal, and immune system.

Alpha Lipoic Acid is an important fatty acid which is found within the body's cells, where it helps convert glucose into energy. However, it is most important as an antioxidant. In 1988, alpha lipoic acid was shown to have powerful antioxidant abilities that are as potent as CoQ-10, Vitamin C, and Vitamin E. Other antioxidants work only in water (such as vitamin C) or fatty tissues (such as vitamin E), but alpha-lipoic acid is both fat- and water-soluble, which means it can work throughout the body. Antioxidants in the body (such as glutathione) are used up as they

attack free radicals, but alpha-lipoic acid may help regenerate these antioxidants and make them active again.

Once GSH has performed its role as an antioxidant, Selenium acts as a catalyst in the reaction that causes two oxidized GSH molecules (GS) to combine into one Glutathione disulfide (GSSG). From there, GSSG can be reduced into two new GSH molecules.

Quercetin is a substance found in fruits, vegetables, leaves and grains, and it is a strong antioxidant which helps support glutathione. Quercetin also helps stabilize the cells, as well as potential support for brain, liver, and kidney function.

Turmeric Root grows wild in the forests of southern Asia including India, Indonesia, and nearby countries, and has been used for thousands of years. Turmeric has been traditionally used to improve digestion, relieve gas, cleanse and strengthen the liver, along with many other common uses. Turmeric is currently being studied for modern health benefits.

L-Glutamine is an amino acid which plays a role in a variety of body functions including protein synthesis, regulation of acid-base balance in the kidney by producing ammonium, and cellular energy (along with glucose). Glutamine has been studied extensively and has been shown to be useful in treatment of injuries, trauma, burns, and treatment-related side-effects of cancer as well as in wound healing for postoperative patients.

Milk thistle seed is part of the milk thistle plant, which has been used in traditional medicine for thousands

of years. Europeans were among the first to use milk thistle seeds as an herb to support liver function, but the plant's remedial capabilities have been known since ancient times. Today, milk thistle is still one of the most commonly used medicinal plants in the world, and clinical research has shown that milk thistle has a wide range of therapeutic applications, particularly in protecting the liver.

Glutathione is a critical for your immune system, detoxification system and is a key component to keeping yourself healthy and boosting your performance. You cannot directly supplement it. The only way to maintain the levels of Glutathione in your body is to give the body what it needs to create it and you can do this with GSH.

# Product Label

## Supplement Facts

Serving Size: 1 Packet (16 g) Servings Per Container: 30

Amount Per Serving	% Daily Value *	
Calories	30	
Calories from Fat	10	
Total Fat	1 g	2%
Cholesterol	0 mg	0%
Total Carbohydrates	5 g	2%
Sugars	4 g	†
Vitamin C (as calcium ascorbate)	60 mg	100%
Vitamin D (as cholecalciferol)	300 IU	75%
Selenium (as sodium selenate)	60 mcg	86%

**Agel Proprietary GSH Blend** 2,000 mg †  
High Linoleic Safflower Seed Oil, Glycine, N-Acetyl L-Cysteine, N-Acetyl D-Glucosamine, *Cordyceps sinensis*, mycelium Ext., Alpha Lipoic Acid, Quercetin, Turmeric Root Ext., L-Glutamine, Milk Thistle Seed Ext.

\* Percent Daily Values are based on a 2,000 calorie diet.  
† Daily Value not established.

**Other Ingredients:** Water, Fructose, Xylitol, Natural Flavors, Xanthan Gum, Guar Gum, Potassium Sorbate.

Great health starts on the cellular level, which is exactly where **GSH** works. **GSH** was designed to preserve glutathione levels in your cells. Glutathione is extremely important for maintaining intracellular health because of its strong antioxidant effects and the ability to remove chemicals and pollutants on a cellular level. As we age and when we get sick our glutathione levels decrease—**GSH** helps keep them at healthy levels. By supporting glutathione levels and attacking the problem at the source, **GSH** is a powerful ally that keeps you feeling healthy and vibrant. \*

### Nutritional Supplement

Patent Pending Suspension Gel Technology.

\* This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



# Safety Cautions

## & ASSESSMENT

### Key Ingredients

Calcium Ascorbate, Vitamin D, Selenium, Glycine, N-Acetyl L-Cysteine, N-Acetyl D-Glucosamine, *Cordyceps sinensis* Mycelium Ext, Alpha Lipoic Acid, Quercetin Turmeric Root Ext, L-Glutamine, Milk Thistle Seed Ext.

- 1** Pregnant or lactating women (or those planning pregnancy) should consult their physician prior to using this product.
- 2** If you are planning a surgery, disclose use of Agel GSH and all other dietary supplements to your physician.
- 3** A dosage of one Agel GSH packet a day can be safely used by most people, unless there is a specific reason not to use this product.
- 4** GSH is intended for adult use. Not for children. It is not intended for use in individuals under 18 years of age, unless directed by a physician.



# Age Guidelines

## FOR USE

AGE GROUP CLASS	APPROXIMATE AGE	USE RECOMMENDATION
Newborn	Birth to one month of age	Not recommended for use
Infant	One month to 2 years	Not recommended for use
Child	2 years to 12 years	Not recommended for use
Adolescent	12 years to 18 years	Check physician before use
Adult	18 years and older	1 packet daily

## Agel Guidelines

- 1** Individual conditions should be considered when considering use, including weight, sex, pre-existing medical conditions, sensitivity or allergic reactions to ingredients and use of prescription medication or other drugs.
- 2** Individuals should begin Agel product use with one Agel product at the lowest dosage and increase dosage and add other complementary Agel products as needed.

## Product Shelf Life

Agel GSH has a shelf life of 18 months when stored under ambient conditions

# Glossary

## Alpha Lipoic Acid (ALA)

A necessary cofactor for several enzyme complexes involved in the body. ALA is used as a dietary supplement for its antioxidant properties. ALA also increases the body's ability to produce glutathione.

## Cordyceps sinensis

A type of mushroom found on the cold mountaintops and snowy grass marshlands of China. It is used as a supplement for its many healthful benefits.

## Glutathione

Tri-peptide chemical compound that acts as an antioxidant to protect cells from free radical oxidation or damage. It is widely viewed as the most important antioxidant in the body.

## Glycine

An amino acid. Key for the synthesis of proteins, ATP, glutathione, glucose, glycogen and more.

## L-Glutamine

An amino acid. Key for the synthesis of proteins and glutathione. Important for muscular recovery and cellular energy.

## Milk Thistle Seed Extract

Derived from a plant of the daisy family whose seed extract is rich in the compound Silymarin. Silymarin is widely used as a detoxifier and is being widely researched for its many physiological effects.

## N-Acetyl L-Cysteine (NAC)

The acetyl form of the sulfur bearing amino acid L-Cysteine. NAC is supplemented to support many things from cardiovascular health to liver health.

## Quercetin

Quercetin is a well-known flavonoid. Flavonoids are powerful antioxidants that support the immune system, as well as many other systems.

## Selenium

Is a high potency anti-oxidant when it occurs as an ingredient in dietary supplement products at a dosage of greater than 20% of the daily value. Selenium is associated with healthy cholesterol management, prostate support and provides antioxidant support to the cardiovascular system\*\*.

## Turmeric Root

Commonly known as a spice used in curry dishes turmeric is also widely used as a nutritional supplement for its numerous beneficial properties.

*\*\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.*

# References

- Rybka J, Kupczyk D, Kedziora-Kornatowska K, Motyl J, Czuczejko J, Szewczyk-Golec K, Kozakiewicz M, Pawluk H, Carvalho LA, Kedziora J. 2011, March. "Glutathione-related antioxidant defense system in elderly patients treated for hypertension". *Cardiovascular Toxicology* 11(1): 1-9.
- Mannervik B. 2011, February 24. "Five decades with glutathione and the GHTome". *Journal of Biological Chemistry*. 287(9): 6072-83.
- Rodas PC, Rooyackers O, Herbert C, Norberg Å, Werener J. 2012 Jun. "Glutamine and glutathione at ICU admission in relation to outcome". *Clinical Science* 122(12): 591-7.
- Magwere T, Burchill SA. 2011. "Heterogeneous role of the glutathione antioxidant system in modulating the response of ESFT to fenretinide in normoxia and hypoxia". *PLoS One* 6(12): e28558
- Wolin MS. 2011 May 10. "Plasma glutathione peroxidase activity is potentially a key regulator of vascular disease-associated thrombosis". *Circulation* 123(18): 1923-4
- Gardaneh M, Gholami M, Maghsoudi N. 2011 Apr. "Synergy between glutathione peroxidase-1 and astrocytic growth factors suppresses free radical generation and protects dopaminergic neurons against 6-hydroxydopamine". *Rejuvenation Res.* 14(2): 195-204.
- Jan AT, Ali A, Haq Q. 2011 Jan-Mar. "Glutathione as an antioxidant in inorganic mercury induced nephrotoxicity". *J Postgrad Med* 57(1): 72-7.
- Liu RM, Gaston Pravia KA. 2010 Jan 1. "Oxidative stress and glutathione in TGF-beta-mediated fibrogenesis". *Free Radic Biol Med* 48(1): 1-15.
- Manickam DS, Li J, Putt DA, Zhou QH, Wu C, Lash LH, Oupicki D. "Effect of innate glutathione levels on activity of redox-responsive gene delivery vectors". *J Control Release* 141(1): 77-84.
- Ogunrinu TA, Sontheimer H. 2010 Nov 26. "Hypoxia increases the dependence of glioma cells on glutathione". *J Biol Chem* 285(48): 37716-24.
- Dinescu A, Brown TR, Barelier S, Cundari TR, Anderson ME. 2010 Oct 1. "The role of the glycine triad in human glutathione synthase". *Biochem Biophys Res Commun* 400(4): 511-6.
- Krance SM, Keng PC, Palis J, Ballatori N. 2010 Jan-Feb. "Transient glutathione depletion determines terminal differentiation in HL-60 cells". *Oxid Med Cell Longev* 3(1): 53-60.

- Raftos JE, Whillier S, Kuchel PW. 2010 Jul 30. "Glutathione synthase and turnover in the human erythrocyte: Alignment of a model based on detailed enzymes kinetics with experimental data". *J Biol Chem* 285(31): 23557-67.
- Khouzami L, Bourin MC, Christov C, Damy T, Escoubet B, Caramelle P, Perier M, Wahbi K, Meune C, Pavoine C, Pecker F. 2010 Sept. "Delayed cardiomyopathy in dystrophin deficient mdx mice relies on intrinsic glutathione resource". *Am J Pathol* 177(3): 1356-64.
- Sekhar RV, McKay SV, Patel SG, Guthikonda AP, Reddy VT Balasubramanyam A, Jahoor F. 2011 Jan. "Glutathione synthesis is diminished in patients with uncontrolled diabetes and restored by dietary supplementation with cysteine and glycine". *Diabetes Care* 34(1): 162-7.

If you would like to review associated publications in more detail we suggest you use PubMed, the information portal provided by the US National Library of Medicine and the National Institutes of Health. PubMed is a service of the U.S. National Library of Medicine that includes over 17 million citations from MEDLINE and other life science journals for biomedical articles back to the 1950s.

To find a reference on PubMed, copy the reference for the article you want to read from the Agel references (or website) page and paste it in the "Search PubMed for" entry box on the following web page: <http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed>

## Additional Resources

[Agel Product Profiles and Organization](#)  
[Agel Suspension Gel Technology FAQ](#)  
[US Regulatory Requirements](#)  
[European \(EU\) Regulatory Requirements](#)  
[Agel Primary Use for All Agel Products](#)  
[Responsible Use of Agel Nutritional Supplements](#)  
[Agel Compliant Claim Guidelines for All Products](#)  
[Agel Product Shelf Life \(All Products\)](#)  
[Agel Quality \(QA/QC 2011\)](#)  
[Product Profiles Listing of Item Numbers and Release Dates](#)  
[Product Certification \(Halal and Kosher Lists\)](#)  
[Agel Glossary \(All Products\)](#)

