



HydrMax[®]
glycerol powder 65%

HYDROMAX[®]

THE LEADER IN HIGH-YIELD 65% GLYCEROL POWDER


glanbia
nutritionals

TRUSTED · STABLE · ACCURATE

**ACCELERATE THE PUMP WITH HYDROMAX, THE
INDUSTRY'S FIRST STABLE, HIGHLY CONCENTRATED
FORM OF POWDERED GLYCEROL.**



The Pioneer

HydroMax is the pioneer of high-yield glycerol powder and has been available to the market since 2015.

Established

HydroMax has a well established relationship with Global brands.

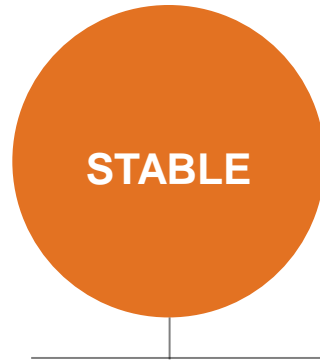
- 100+ products launched
- 21+ countries

Studied

HydroMax is the only high-yield branded glycerol powder with a pilot human study indicating a positive efficacy during exercise.*

Experience

Glanbia has extensive experience collaborating with leading Sports Nutrition brands and comans to provide an unrivaled set of solutions for creating products that build muscle, accelerate recovery and increase endurance.



Efficient

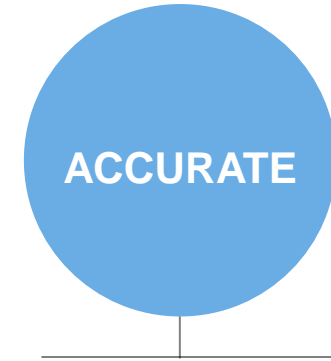
HydroMax is a proprietary blend of glycerol and silica, providing a shelf-stable glycerol powder at a much higher percentage of glycerol (65%) than glycerol monostearate (GMS). GMS becomes unstable over time as it absorbs water and therefore low concentrations (5-12%) are required to prevent degradation.

Optimized

HydroMax allows for a larger dose of active material to fit into a smaller space making it more feasible for traditional serving size finished products. Takes 10x less material to obtain the same amount of glycerol as conventional GMS products.

Dispersible

HydroMax is water dispersible making it an easy inclusion in ready-to-mix powder applications.



Method Benchmark

HydroMax was used to establish the gold standard analytical method for glycerol powder. Other methods of analysis used to verify glycerol powder potency have a tendency to underestimate the percentage of active glycerol.

Tests Positive

HydroMax accurately tests out at 65% or higher glycerol content but never under like other high-yield glycerol powders on the market.

Compliant

Prop 65 compliant – At its most optimized dose level, HydroMax remains Prop 65 compliant while other high-yield glycerol powders on the market do not.

BIOLOGICAL EFFECT OF GLYCEROL ON PHYSIQUE

- Ingested glycerol is absorbed and distributed throughout the intracellular space, increasing the concentration of fluid in the tissues, accentuating the desired “pump response”
 - Helps to store extra water in the space between cells
 - Blood vessels appear to plump up
 - Muscles appear more prominent
 - Consuming glycerol before a bodybuilding show helps give a more “engorged” look



HYDROMAX[®] VS. GLYCEROL MONOSTEARATE



- Proprietary blend of glycerol and silica
 - Standardized to 65% glycerol by weight
 - Provides a shelf-stable glycerol powder at a much higher percentage of glycerol than GMS
- A larger dose of active material can fit in to a smaller space
 - More feasible for traditional serving size finished products
 - Takes 10x less material to get same amount of glycerol as conventional GMS products
- Water dispersible
- Allergen-free
- Manufactured in USA
- Three year shelf-life
- Works well with other “pump” ingredients, such as creatine, taurine, agmatine, “NO enhancing” extracts, botanical dietary nitrates

Glycerol Monostearate (GMS)

- Traditional powdered form of glycerol used in sports nutrition
- Extremely hygroscopic
 - Becomes unstable over time as it absorbs water
 - Therefore, low concentrations (5-12% glycerol) are required to prevent degradation

HYDROMAX® IS IDEAL FOR THESE TARGETS

TARGET APPLICATIONS

READY-TO-MIX
POWDERS

TABLETS

CAPSULES

SOFTGELS

TARGET SPORTS NUTRITION PRODUCT FOCUS

PRE
WORKOUT

GLYCEROL
BASED
PRODUCTS

PUMP
FOCUSED
PRODUCTS

MATERIAL SPECIFICATIONS

Regulatory: non-GMO and Kosher

Recommended dose: Recommended dose glycerol = 700-2,000 mg HydroMax[®]

Physical characteristics: White powder

Suggested labeling: Glycerol, Silica

Pack size: 25kg (Also MOQ)

- Minimum order quantity – Pack size
- Stocking location – Carlsbad, CA and New Jersey
- Standard lead time – 1 week material availability + shipping considerations

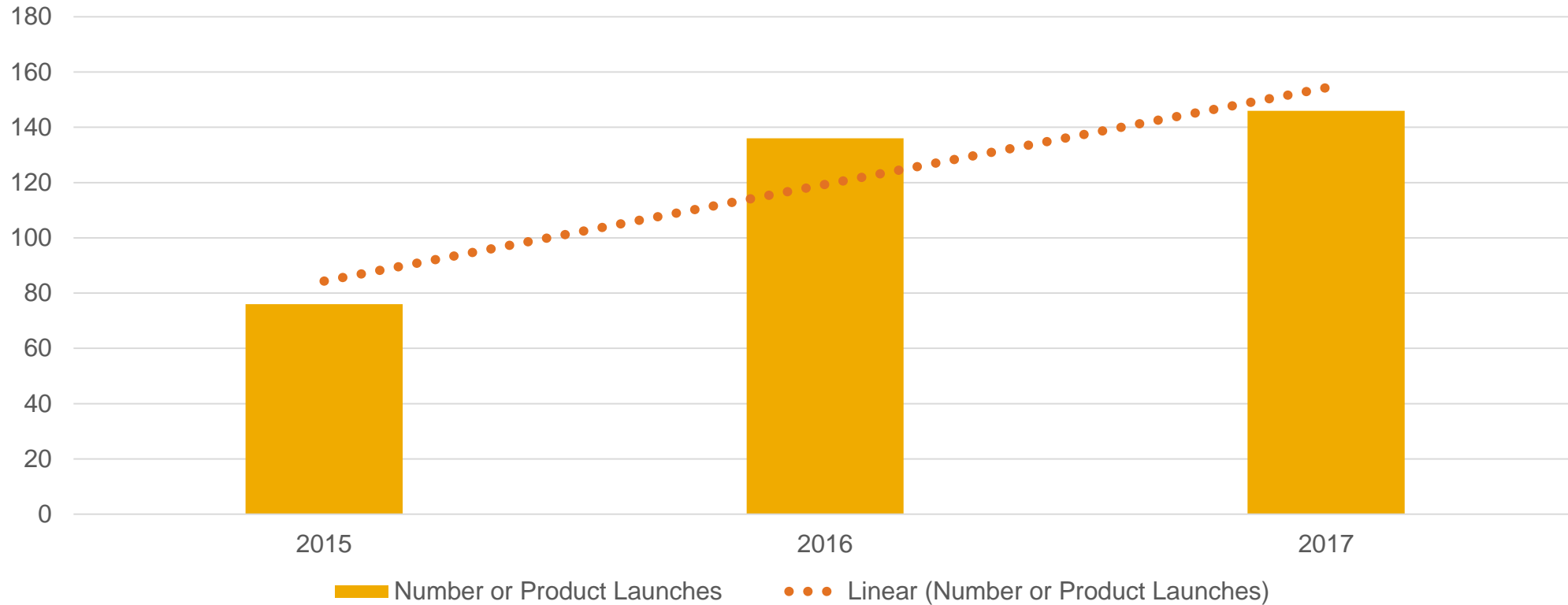
Shelf life: 2 years

SPORTS NUTRITION/ PRE-WORKOUT MARKET INSIGHTS

“PUMP” SPORT NUTRITION SUPPLEMENTS CONTINUE TO GROW

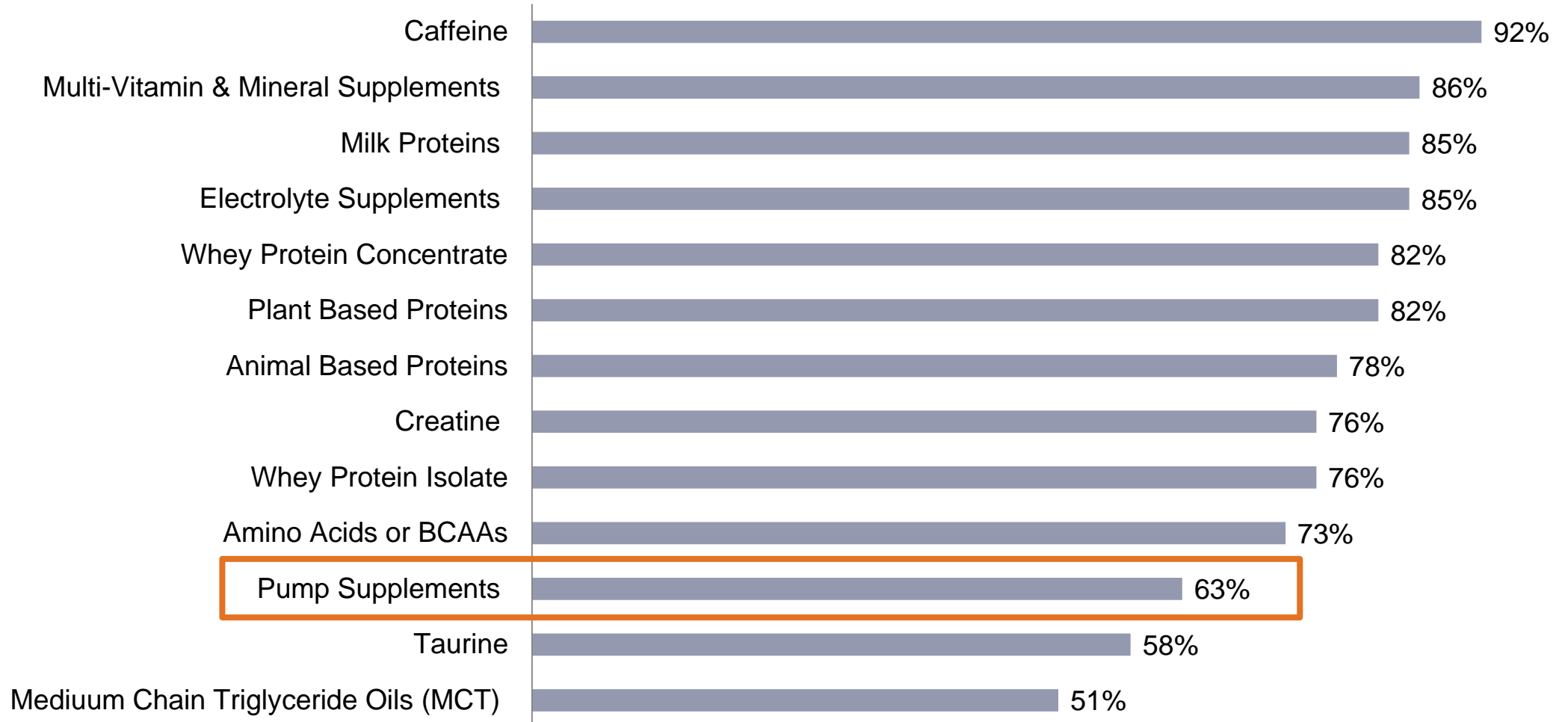
DRIVING GROWTH IN HYDROMAX® PRODUCT LAUNCHES

Number of “Pump” Product Launches



MANY CONSUMERS ARE AWARE OF “PUMP” SUPPLEMENTS FOR ENHANCING THEIR WORKOUTS

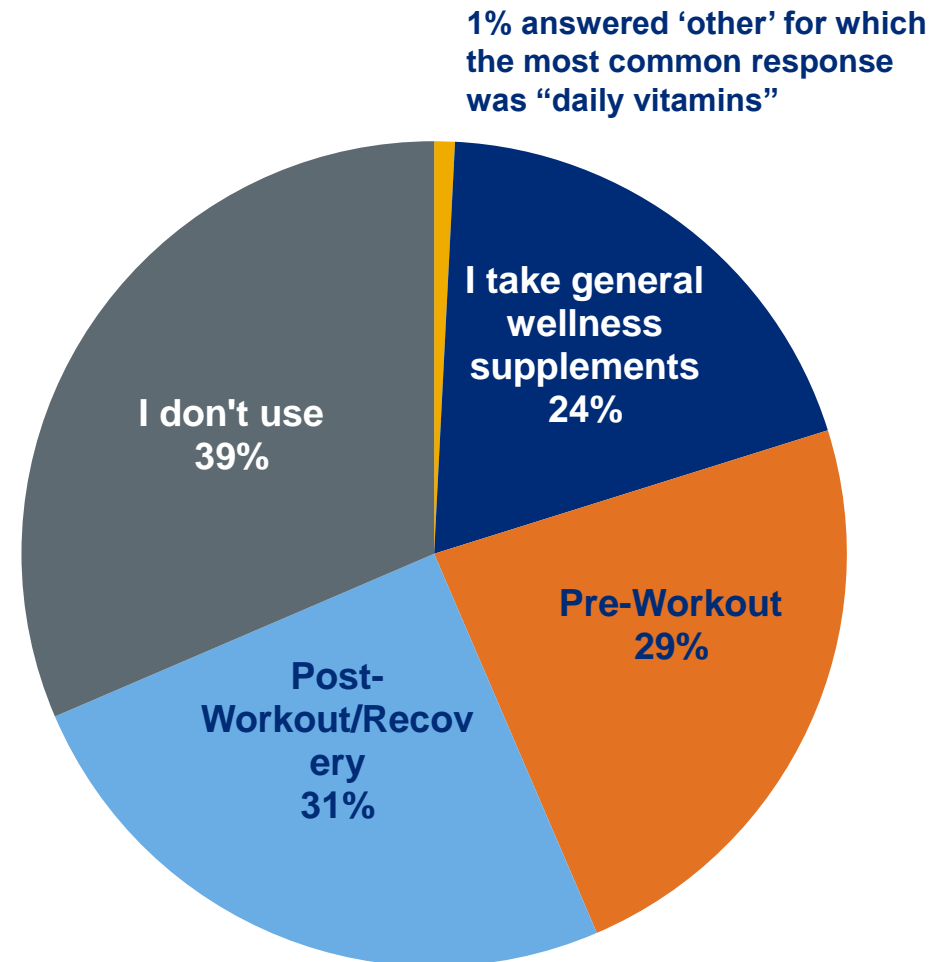
1014 CONSUMERS SURVEYED - INDICATE YOUR FAMILIARITY WITH THE FOLLOWING INGREDIENTS AVAILABLE TO ENHANCE WORKOUTS



60% OF CONSUMERS CURRENTLY USE EITHER A PRE-WORKOUT OR POST-WORKOUT PRODUCT

N=1014

I Use a Product in One or More of the Following Categories to Help Enhance My Workout



SPORTS & LIFESTYLE NUTRITION SALES BY SUBCATEGORY

POWDER CONTINUES TO DOMINATE THE SPORTS NUTRITION CATEGORY

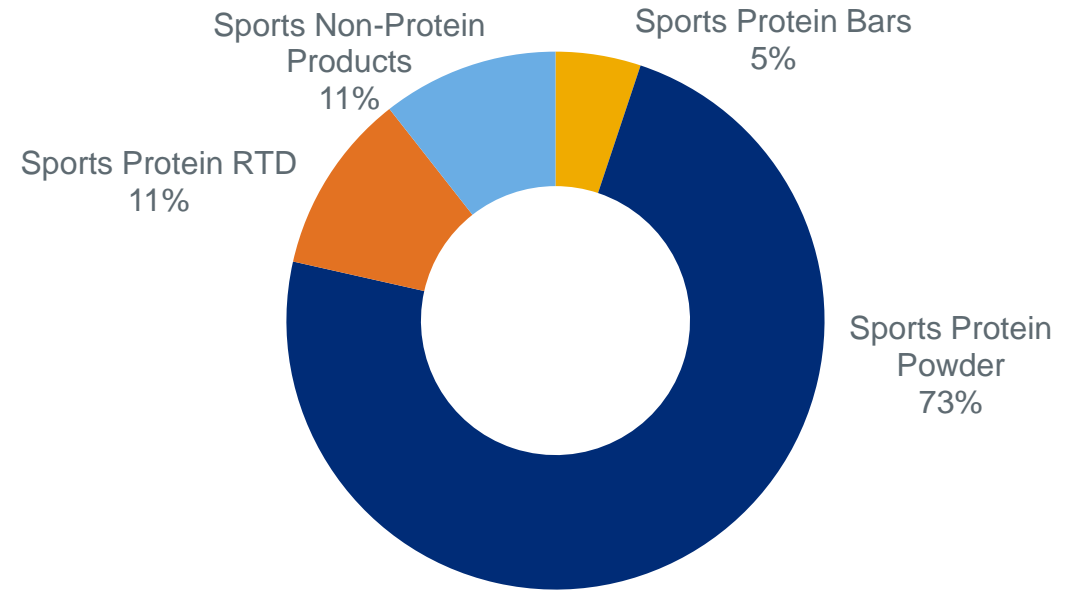
Sales by Subcategory (2018)

Protein Powder Products

are bulk protein supplements, generally positioned around recovery. Protein is sourced from milk, plant and egg/meat proteins.

Non-Protein Powders

do not have protein as their core ingredient but focus on boosting energy, delaying fatigue, increasing strength and promoting muscle recovery. Common ingredients include amino acids, carbohydrates, creatine, beta alanine and caffeine.



Subcategory	2018 Category Value (\$M)	Current Year Growth	%CAGR (2013-2018)	Forecast %CAGR (2018-2023)
Sports Protein Bars	470	3.3	3.6	5.1
Sports Protein Powder	6,737	11.3	13.1	9.4
Sports Protein RTD	1,000	8.3	9.3	9.3
Sports Non-Protein Products	972	7.7	10	6.8

U.S. SPORTS & LIFESTYLE NUTRITION

CURRENT VALUE SALES GREW 10% TO REACH \$9.2B IN 2018

\$14B

By 2023 Forecast Sales



Forecasted 2023
YOY Growth



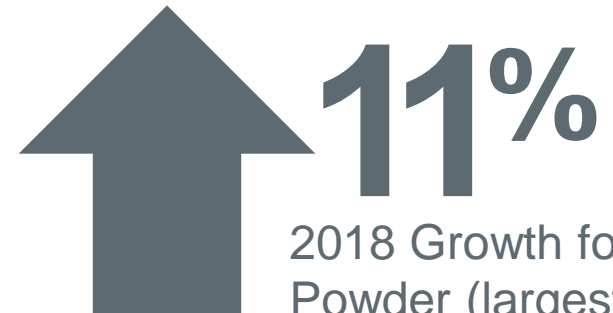
Forecast CAGR
Growth for Protein
Powder 2018 – 2023

\$9.2B

2018 Sales



2018 YOY Growth



2018 Growth for Protein
Powder (largest
subcategory)

APPENDIX

HYDROMAX[®] OPTIMIZED PRE-BLENDS AVAILABLE

We have developed two pre-blended solutions that will assist in obtaining the most optimal powder flow with no clumping in your end product formulation.



HYDROMAX[®] + SILICA PRE-BLEND - WITH SIPERNAT 50S

How much Sipernat is needed?

To avoid production and stability issues we recommend blending HydroMax glycerol powder with Degussa's Sipernat 50S:

Glycerol powder blend	Sipernat 50S
1000 mg	200 mg- 300 mg
1500 mg - 3000 mg	400 mg - 500 mg
4000 mg - 6000 mg	700 mg- 800 mg

What to do if using additional hygroscopic ingredients?

Additional Sipernat 50S needed if using hygroscopic ingredients: Arginine and Carnitine salts, Citric/Malic acid flavor systems

How is Sipernat Blended?

- Pre-blending** - The Sipernat 50s should be pre-mixed with the glycerol using approximately 40% to 50% of the silica in the formulation (approximately 10-15 minutes).
- Add additional ingredients** – Add the rest of the formulation ingredients and remaining Sipernat 50s. Blend for another 15 minutes

We've done the work for you!

Purchase our silica pre-blend or follow these guidelines during your product formulation to avoid potential production issues.

HYDROMAX[®] + LEUCINE PRE-BLEND

Why Leucine?

The addition of leucine provides you an alternative to adding silica to your product labels.

Are there any additional benefits?

- Leucine has muscle sparing, muscle building, and mTOR stimulation benefits
- Offers Intraworkout benefits in addition to preworkout
- Increased pump and muscle building support

We've done the work for you!

Purchase our leucine pre-blend for a beneficial alternative to adding silica to your products.

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