

ND PHARMA & BIOTECH

M.A.R.S.™

Micro Alcohol Reaction System

Advanced technology for spirits and alcoholic beverages.

Developed by ND Pharma & Biotech.
Commercial document · Professional industrial use

Technology for refining the hydroalcoholic matrix

M.A.R.S.™ is a specialized system for treating and optimizing hydroalcoholic matrices for industrial use in distilleries and spirits production.

Formulation and process

Proprietary technology focused on alcohol integration, perceived smoothness, aromatic balance and finish quality. The product's scientific basis enables reduction of the alcohol molecule, renders ketone bodies inert and increases elimination capacity while generating a lower volume of by-products associated with metabolic risk.

Product-specific application

The work starts with the matrix and the manufacturer's sensory target. Conditions of use are assessed for each product and process.

Industry track record

Commercial history since 2012 and an established track record of application in the industry.

The suitability of each application is determined through testing and validation.

AREAS OF VALUE

Six technological benefits

Six areas of work to assess the sensory quality, consistency and development potential of each beverage.

01 Organoleptic profile optimization

Perceived smoothness, balance and finish.

02 Hydroalcoholic integration

Combined behavior of the components.

03 Refinement of spirits

Sensory adjustment that preserves identity.

04 Batch-to-batch consistency

Reproducible quality specifications.

05 Innovation and differentiation

Exploration of new profiles and finishes.

06 Integration into industrial processes

Procedures tailored to each production process.

SENSORY QUALITY

Organoleptic profile and hydroalcoholic integration



Glass and amber liquid. Illustrative plate of the matrix being treated.

Sensory refinement

The application aims for greater perceived smoothness, better palate balance and less alcohol harshness, depending on the product's characteristics.

Matrix integration

The combined behavior of water, ethanol and other components is studied to explore more harmonious profiles and a consistent finish.

Comparative evaluation verifies whether the resulting profile meets the manufacturer's target.

Spirit refinement and batch-to-batch consistency



Tasting glasses for sensory comparison of samples.

Preserving character

Refinement can be assessed in young spirits, alcohol bases and high-intensity profiles. The target is defined while preserving each product's identity.

Reproducing the profile

In industrial production, evaluation also focuses on sensory consistency and the ability to maintain reproducible quality specifications.

Consistency must be verified across batches and under actual production conditions.

PRODUCT DEVELOPMENT

Innovation, differentiation and process integration



Spirit bottle formats. Differentiation begins with the product profile.

New finishes

M.A.R.S.™ enables the exploration of new sensory profiles and finishes for premium segments or markets seeking distinctive experiences.

Industrial adaptation

Application is assessed during formulation, blending and finishing, with procedures tailored to each production process.

The development proposal must link the commercial objective to a verifiable sensory result and a viable process.

APPLICATION CATEGORIES

Industry applications



Amber spirits



Bases and clear spirits



Formulated beverages

Spirit drinks and distillates

Rum and sugarcane spirits; whisky and whiskey; brandy and wine distillates.

Vodka and neutral bases; gin and botanical spirits.

Tequila, mezcal and agave spirits; fruit and grain spirits.

Formulated alcoholic beverages

Liqueurs and cream liqueurs; flavored spirits.

Prepared cocktails and RTDs; macerations, extracts and alcoholic preparations.

Compatibility depends on the formulation, process and legal requirements of each category.

VALUE FOR PRODUCTION AND QUALITY

What M.A.R.S.™ brings to a distillery



Copper pot still. Illustrative image, not a reference installation.

Technology applied to quality and commercial value: it complements, without necessarily replacing, the traditional processes that define a spirit's identity.

Sensory quality

More balanced profiles tailored to the manufacturer's objectives.

Production consistency

A consistent sensory experience across batches, subject to validation.

Added value

Technological and commercial differentiation for existing products and new product lines.

FROM PRODUCT TO INDUSTRIAL SCALE

Implementation and validation in four stages



Representative samples for comparative testing.

01 Product characterization

Matrix, alcohol strength, composition, process and sensory characteristics.

02 Application trial

Representative samples under defined addition conditions.

03 Comparative evaluation

Sensory study of treated and untreated samples, with physicochemical and chromatographic analyses where appropriate.

04 Industrial validation

Reproducibility, stability, compatibility and viability at scale.

VERIFICATION CRITERIA

Evaluation parameters



Laboratory equipment. The choice of analytical methods depends on the matrix.

Evaluation combines sensory observation and analytical checks, with a scope defined for each application.

- Aromatic profile and palate balance.
- Alcohol intensity and perception.
- Smoothness, body and sensory persistence.
- Stability, color and clarity.
- Alcohol strength and physicochemical parameters.
- Volatile compound profile, where applicable.
- Consistency and reproducibility of results.

Results are interpreted against untreated samples and the manufacturer's quality objectives.

Technology development and industrial support



Illustrative industrial installation. Does not depict a company-owned or customer installation.

M.A.R.S.™ is part of the ND Pharma & Biotech portfolio, promoted with technical support from INTABIOTECH.

Application support

- Application assessment and process adaptation.
- Comparative testing on product samples.
- Definition of technical conditions of use.

Guidance focuses on linking the beverage's characteristics to production conditions and industrial validation criteria.

Sales and company contacts

Request technical information and an evaluation tailored to your production process.

Sales contact

Sales contact	INTABIOTECH S.L.
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To help us address your inquiry, please specify the beverage category, starting matrix and evaluation objective.



Distillery barrels. Production tradition and technological evaluation.

Discover the potential of M.A.R.S.™ in your spirits

Request a tailored evaluation of your product and production conditions.

Technology for professional industrial use. Results depend on the formulation, application conditions and validation performed. Use must comply with the regulations applicable to each beverage category and market. M.A.R.S.™ does not alter the beverage's status as an alcoholic beverage, nor does it imply a substantiated reduction in the risks associated with its consumption. For more information, consult the M.A.R.S document on scientifically proven benefits.

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