

# Arbitrary criminalization through chemical equivalence: The misuse of GBL valuation as GHB in Spanish criminal law

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This work critically analyzes the flawed police and judicial practice in Spain of valuing gamma-butyrolactone (GBL)—a legally non-scheduled chemical substance—as if it were gamma-hydroxybutyric acid (GHB), an internationally scheduled psychotropic substance. This arbitrary equation, driven by chemical similarity but lacking legal foundation, constitutes a profound violation of the principle of legal certainty and the principle of legality in criminal law.



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## Key Focus Areas

The presentation explores the critical distinction between "chemical precursor" and "legal precursor," the unique dual conversion mechanism of GBL into GHB (synthetic and metabolic), and the resulting arbitrary and disproportionate imputations under Article 368 of the Spanish Penal Code (CP). We argue for an immediate regulatory clarification or, failing that, the strict application of *nullum crimen, nulla poena sine lege*.

# Introduction: The Regulatory Challenge of Synthesis Chemistry

The fight against illicit drug trafficking constantly challenges existing regulatory frameworks. Synthesis chemistry frequently outpaces legislation, presenting legal ambiguities regarding substances not explicitly listed in control schedules but possessing the potential to be converted into controlled drugs. Gamma-Butyrolactone (GBL) stands as a prime example of this regulatory lag and subsequent judicial overreach.



## Purpose of This Analysis

Critically evaluate the normative and jurisprudential validity of this equivalence.



## Examining Penal Guarantees

Assess the practice's impact on criminal guarantees, particularly the principle of legality.



## Conceptual Clarity

Establish the distinction between "chemical precursor" (technical possibility) and "legal precursor" (explicit punitive regulation).

This study seeks to highlight how the lack of a clear legal framework has led to arbitrary and disproportionate imputations, which fundamentally erode the constitutional requirements of *lex scripta* and *lex certa* (taxativity).

## The Spanish Judicial Practice

In Spain, police and judicial practice has often circumvented the non-scheduled status of GBL by valuing it directly as GHB, effectively equating its economic worth and potential social danger for the purposes of criminal prosecution under Article 368 CP. This occurs despite GBL's explicit exclusion from national control regulations, generating unwarranted criminalization, particularly affecting vulnerable populations like the chemsex community.

# GBL and GHB: The Chemical Reality vs. The Legal Status

GBL is a common industrial solvent used in products like cleaners, adhesives, and inks. It is an organic compound classified as a lactone. Chemically, it is the internal ester of GHB, making their relationship undeniable from a pharmacological and toxicological standpoint.

## Gamma- Butyrolactone (GBL)

- Industrial chemical, widely used as a solvent.
- Legally **non-scheduled** substance internationally and nationally.
- Acts as a **prodrug** for GHB upon ingestion.

## Gamma- Hydroxybutyric Acid (GHB)

- Psychoactive substance with sedative effects.
- Internationally **scheduled** under List II of the 1971 Convention on Psychotropic Substances.
- Possession and trafficking are penalized under Article 368 CP in Spain.

The key mechanism linking them is hydrolysis: under specific chemical conditions (e.g., adequate pH), GBL spontaneously converts into GHB. This is a known phenomenon, but it is insufficient to justify full legal or penal equivalence.

GBL is not listed in international scheduling tables, nor in Spain's national controlled substances list. Crucially, it has not been declared a "legal precursor" under EU regulations (Reg. (EC) No 273/2004 or No 111/2005).

**Asymmetric Regulation, Profound Implications:** While the chemical connection is clear, the legal statuses are fundamentally distinct. The GBL's status as a chemical precursor must not be conflated with an automatic legal or criminal equivalence. This asymmetry is the core basis for the legal challenge to arbitrary penalization.

## ❏ Crucial Distinction: Absence of an Analogue Law in Spain

Unlike countries such as the United States, which has the "Federal Analogue Act" (also known as the Controlled Substance Analogue Enforcement Act) allowing prosecution of substances substantially similar in chemical structure and effect to controlled substances, Spain does not possess an "analogue law" (ley de análogos). This means that the mere chemical similarity between GBL and GHB cannot, by itself, serve as a legal basis for prosecuting GBL as if it were GHB. This absence significantly undermines any attempts to conflate their legal statuses and makes the arbitrary penalization of GBL particularly problematic under Spanish law.

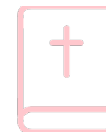
# Conceptual Frame: Chemical vs. Legal Precursor

A critical flaw in judicial practice stems from confusing a chemical potential with a legal mandate. For penal law to be justly applied, the substance must be explicitly criminalized.



## Chemical Precursor

A substance technically capable of being used as a raw or intermediate material in the synthesis of a controlled drug (e.g., GBL's molecular structure allows conversion to GHB via hydrolysis).



## Legal Precursor

A substance explicitly declared and listed in a binding normative disposition (national law or international treaty) that triggers criminal sanctions or administrative controls.

*"Criminal legal certainty demands a reinforced taxativity in describing the offense type, incompatible with implicit or expansive valuations based on material analogy."* — **Silva Sánchez**

**The Violation:** Considering GBL punishable *per analogiam* based on chemical similarity constitutes a direct breach of Article 25.1 of the Spanish Constitution, which prohibits analogy *in malam partem* (to the detriment of the defendant). The expansive interpretation of the criminal type, based on chemical rather than strictly legal principles, violates the nucleus of criminal guarantees.

# Dual Transformation: Synthetic Synthesis vs. Metabolic Reaction

A critical distinction often missed in forensic and judicial reports is the difference between the deliberate, manual chemical conversion of GBL into GHB, and its involuntary physiological transformation after ingestion. These are not penal or toxicological equivalents.

## 1. Chemical (Synthetic) Conversion

GBL is transformed into GHB through a basic hydrolysis reaction, typically using sodium hydroxide (NaOH) or another alkaline reagent. This reaction requires minimal knowledge and infrastructure, producing GHB salt. Forensic studies estimate a theoretical maximum yield of 1.65g of sodium GHB per 1ml of GBL.

**Legal Implication:** Implies deliberate action and minimal chemical intent. Without proof of reagents or infrastructure, intent to synthesize cannot be assumed.

## 2. Metabolic (Physiological) Conversion

Upon ingestion, GBL is rapidly and almost completely converted into GHB within the body by the lactonase enzyme. GBL acts as a prodrug, resulting in a quicker onset and greater potency than GHB administered directly.

**Legal Implication:** This is an involuntary physiological phenomenon, a direct consequence of consumption. Possession of GBL for consumption does not automatically imply an intent for technical conversion or illicit trafficking.

**Consequences of Confusion:** The failure to distinguish between these two processes leads to errors in economic valuation—presuming all GBL is destined for manual conversion and subsequent trafficking. This speculative inference violates the principle of culpability and the right to the presumption of innocence.



# The Non-Mandatory International and European Status

The international regulatory regime for psychotropic substances (1961, 1971, and 1988 UN Conventions) provides the foundation for national laws. GHB was scheduled in 2001 under the 1971 Convention (List II). **GBL was not.**





## International Consensus: A Deliberate Exclusion

- **International Narcotics Control Board (INCB):** The INCB has acknowledged GBL's use as an uncontrolled substitute for GHB but has **not promoted its mandatory inclusion** in international schedules.
- **European Union:** EU precursor control regulations (Reg. 273/2004 and 111/2005) establish harmonized lists of controlled precursors. GBL is **not** included in any category subject to administrative or penal control.
- **Spanish National Law:** Neither the European framework nor the Spanish Penal Code (Art. 368) has incorporated GBL as a controlled or penalized substance. The Ministry of Health's catalogue of controlled substances includes GHB, but explicitly excludes GBL.


Any expansive interpretation equating GBL to GHB, without explicit legal backing, exceeds the current legal framework and constitutes an infringement of the principle of criminal legality. The inclusion of a substance in official lists is an indispensable condition for penal prosecution.

# Arbitrary Penal Valuation: The Economic Fallacy

In drug trafficking cases, the economic valuation of seized substances is crucial for determining the severity of the offense and calculating fines. Because GBL is not scheduled, it lacks an illicit market price. Judicial and police reports frequently resort to GHB price lists, assuming an automatic, future conversion that is neither necessary for consumption nor proven.

	165 G		€ 942.56
Maximum Conversion Yield		Estimated Arbitrary Value	
Theoretical max grams of GHB sodium per 1ml of GBL (requires optimal synthetic conditions).		Value attributed to 18ml of GBL in a specific Madrid police report, based on GHB prices.	

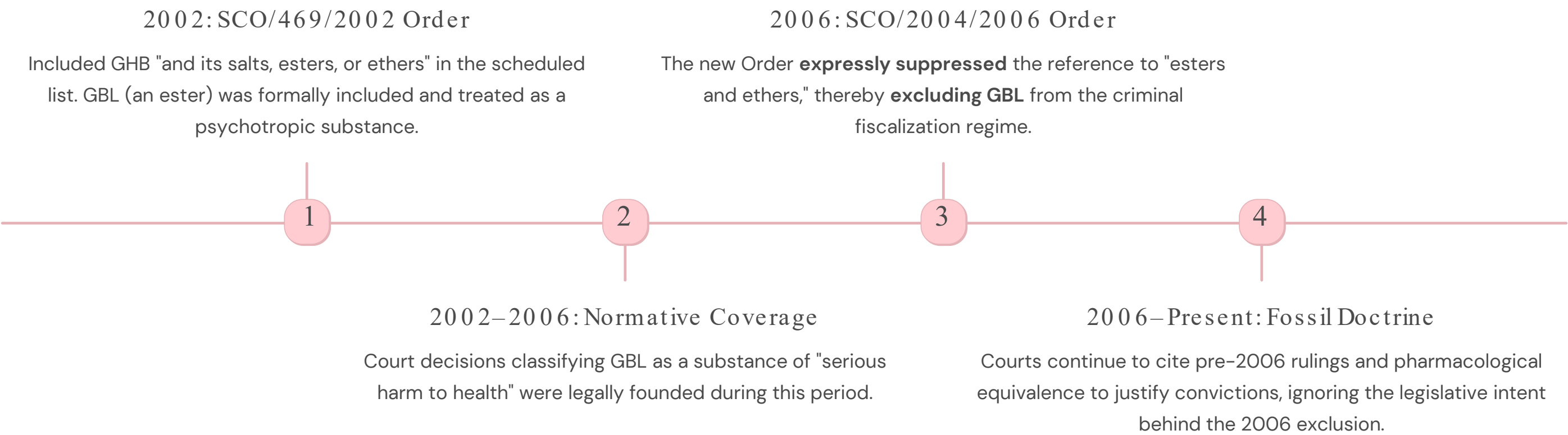
**The Error:** Attributing the price of GHB to GBL presupposes an implicit future criminal outcome (conversion and trafficking) that is not proven. This practice introduces an element of objective liability, which is prohibited in criminal law. It artificially inflates the value of the substance, impacting bail, pretrial detention, and final sentencing.

 **Impact on Chemsex Community**

This valuation bias has led to manifest disproportionality, especially in cases where GBL possession relates to recreational or sexualized use (chemsex) without proof of trafficking intent, resulting in severe and unwarranted penal exposure.

# Fossil Jurisprudence: The Survival of a Derogated Doctrine

The current judicial confusion is rooted in the persistence of legal doctrine that was explicitly superseded nearly two decades ago. This "fossil jurisprudence" applies norms that have been repealed, undermining the constitutional principles of *lex scripta* (written law) and *lex posterior* (later law supersedes earlier law).



**Constitutional Tensions:** Condemnations based on pre-2006 doctrine post-2006 constitute penal analogy *in malam partem*, where judges substitute the legislative mandate with a toxicological equivalence reasoning. This constitutes a direct violation of Article 25.1 CE.

The deliberate omission of the 2006 amending order in police valuation reports to justify arbitrary detentions reveals the instrumentalization of technical reports to create a criminal imputation where no normative basis exists.



# Comparative Law: International Standards Demand Legislative Clarity

Analyzing how other jurisdictions handle GBL demonstrates that automatic equivalence is not a global standard, reinforcing the need for explicit legal criteria in Spain.



## United States (DEA)

GHB is Schedule I. GBL is controlled only when possessed with the **intention** to use it to produce GHB. Courts require proof of criminal intent and effective conversion or attempted conversion.



## Germany, France, Italy

GBL is subject to administrative controls (licenses, notifications) due to its industrial use, but generally not penalized as a drug or valued as GHB without proof of synthesis intent.



## Canada

Penalizes GBL possession only when additional elements prove illicit use. It is not listed as a controlled substance in the strict sense, maintaining a clear distinction from GHB.

**Conclusion:** Systems with strong legal guarantees universally maintain a clear normative distinction between GBL and GHB, demanding additional proof of criminal intent or effective synthesis to ground an imputation. Penalization, where it exists, is based on explicit legislative reform, not judicial interpretation.

The industrial lobby, channeled through organizations like Cefic, successfully pressured for GBL's exclusion from penal fiscalization in 2006, citing its massive industrial use and the need to avoid "competitive disadvantage" for European firms. This industrial-regulatory decision solidified GBL's legal non-scheduled status.



# Conclusion and Recommendations: Upholding the Rule of Law

The arbitrary penalization of GBL based on its potential conversion to GHB violates the principles of legality, taxativity, and minimum penal intervention. The existing legal vacuum is not a matter of legislative oversight but a documented, deliberate decision by international and national bodies not to criminalize the substance.

## Suggested Pathways for Legal Certainty



### Option 1: Express Legislative Inclusion

The State could explicitly include GBL in the national list of scheduled substances (as a controlled drug or precursor) via a law or adequate regulation. While this would still lead to penalization, it would provide judges with **clearly defined legal criteria**, preventing the current interpretive abuses.



### Option 2: Jurisprudential Guidance

The Judicial Branch (e.g., General Council of the Judiciary) should issue an interpretive instruction clarifying that GBL cannot be considered a scheduled substance nor valued as such for penal purposes, absent explicit legislative change. This updates the legal criteria to the post-2006 framework.

**Final Mandate:** In a rule of law, the power to punish must not precede the written law. The persistent use of speculative pericial reports and fossil doctrine to condemn individuals—often members of vulnerable groups—for the possession of a non-scheduled substance constitutes an egregious failure of the criminal justice system. The punishment cannot be anticipated to the law.

It is a failure of the state when a single person is serving a sentence for a crime that does not even exist.