REFERENCE

Comparative table

Substance	Modification	Prodrug?	HTR potency (% LSD)	Human data	Legal status (UK)
LSD	None — parent compound; free indole nitrogen (N1–H), N6-methylated, diethylamide at C8	Prodrug: no	100% (reference)	The strongest human dataset in the class: pooled analysis of four double-blind, placebo-controlled crossover studies in 83 healthy subjects (131 administrations) at 25, 50, 100 and 200 µg. Common adverse effects: headache, anxiety, nausea, dizziness. At 200 µg: peak heart rate >100 bpm in 25% and peak body temperature >38 °C in 34%. No clinically relevant liver or kidney function changes.	UK: Class A under the Misuse of Drugs Act 1971 — supply/production: up to life imprisonment; possession: up to 7 years.
ALD-52	Acetyl group on the indole nitrogen N1	Prodrug: yes	~91% (murine HTR, reported)	No controlled clinical data.	UK: likely controlled as an LSD derivative under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently - always verify official sources.
1P-LSD		Prodrug: yes	~38% (murine HTR, reported); in vivo ef-	Only n = 2 (controlled self-administrations, no safety study): oral bioavailability of LSD after 1P-LSD ingestion was close to 100%; only LSD —	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently -

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	Propionyl group on the indole nitrogen N1		fect attributable to released LSD	not the parent compound — was detected in serum.	always verify official sources.
1B-LSD	Butyryl group on the indole nitrogen N1	Prodrug: yes	14% of LSD (ED50 976.7 vs 132.8 nmol/kg, C57BL/6J mice)	No controlled clinical data.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently - always verify official sources.
1V-LSD	Valeroyl (pentanoyl) group on the indole nitrogen N1	Prodrug: yes	~36% (murine HTR, reported)	No controlled clinical data.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently - always verify official sources.
1cP-LSD		Prodrug: yes		No controlled clinical data.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently -

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	Cyclopropanecarbonyl group on the indole nitrogen N1		~31% (murine HTR, reported)		always verify official sources.
AL-LAD	Allyl group on the amine nitrogen N6 (D ring)	Prodrug: no	~76% of LSD (ED50 174.9 vs 132.8 nmol/kg, C57BL/6J mice)	No controlled clinical data.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently - always verify official sources.
ETH-LAD	Ethyl group on the amine nitrogen N6 (D ring)	Prodrug: no	Active in the murine HTR assay; no consolidated comparative potency value	No human data — no controlled clinical studies exist. Any statement about human potency or safety is uncertain; the precautionary principle applies.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently - always verify official sources.
1S-LSD	3-(Trimethylsilyl)propanoyl group on the indole nitrogen N1	Prodrug: yes	n.d.	No controlled clinical data.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently -

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	— a silicon-containing acyl moiety				always verify official sources.
PRO-LAD	Propyl group on the amine nitrogen N6 (D ring)	Prodrug: no	n.d. (murine HTR); ~100% of LSD in rat drug discrimination (reported)	No controlled clinical data.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently - always verify official sources.
LSZ	Amide side chain replaced: the C8 diethylamide becomes a 2,4-dimethylazetidide ring (stereospecific)	Prodrug: no	~116% of LSD (ED50 114.2 vs 132.8 nmol/kg, C57BL/6J mice)	No controlled clinical data.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently - always verify official sources.
MLD-41	Methyl group on the indole nitrogen N1 (alkyl,	Prodrug: no		No controlled clinical data.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently -

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	not acyl — not hydrolysable)		~33% of LSD (murine HTR, reported)		always verify official sources.
BOL-148	Bromine atom at ring position C2 (indole ring substitution)	Prodrug: no	<2–7% of LSD (murine HTR, reported) — does not induce the HTR at psychoactive LSD-like doses	No controlled clinical data for psychedelic effects; investigated historically as a non-hallucinogenic 5-HT2A ligand.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently - always verify official sources.
LSM-775	Amide side chain replaced: the C8 diethylamide becomes a morpholine amide	Prodrug: no	~11% of LSD (murine HTR, reported)	No controlled clinical data.	UK: most lysergamide analogues are likely controlled as LSD derivatives under the Misuse of Drugs Act 1971, or captured by the Psychoactive Substances Act 2016 (production/supply offences). Laws change frequently - always verify official sources.

HTR percentages come from murine assays and are **animal data**: they measure 5-HT2A-mediated head-twitch behaviour, not the human experience. For the N1-acyl prodrugs, in-vivo potency largely reflects how efficiently the compound is hydrolysed to LSD — not intrinsic receptor action. Direct translation to humans is not possible without clinical data, which exist only for LSD (DOI 10.1007/s00213-021-05978-6).