## **Explanatory notes**

The boundaries and names shown and the designations used on the maps in the present publication do not imply official endorsement or acceptance by the United Nations.

The designations employed and the presentation of the material in the present publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Countries and areas are referred to by the names that were in official use at the time the relevant data were collected.

Multiple government sources of data were used to generate the present report, including form D ("Annual information on substances frequently used in the illicit manufacture of narcotic drugs and psychotropic substances"); the Pre-Export Notification Online (PEN Online) system; the Precursors Incident Communication System (PICS); results achieved under Project Prism and Project Cohesion, which are the international operational initiatives regarding chemicals used in the illicit manufacture of, respectively, synthetic drugs, and cocaine and heroin; and official communications with competent national authorities and official national reports on the drug and precursor control situation.

Unless otherwise specified, data provided on form D are referred to by the calendar year to which they apply. The reporting period for data from the PEN Online system and PICS is from 1 November 2021 to 1 November 2022, unless otherwise specified. Where PEN Online system data are used for multiple years, calendar years are used. Additional information was provided through regional and international partner organizations, as indicated in the report.

With regard to data on seizures, readers should bear in mind that reported seizures generally reflect the corresponding level of regulatory and law enforcement activity at that specific time. In addition, as seizures are often the result of law enforcement cooperation among several countries (e.g. through controlled deliveries), the occurrence of seizures and the volumes seized in a given country should not be misinterpreted or used as an overestimation in assessing that country's role in the overall situation of trafficking in precursors.

Reference to "tons" is to metric tons, unless otherwise stated.

The following abbreviations have been used in the present report:

ANPP 4-anilino-*N*-phenethylpiperidine

4-AP 4-anilinopiperidine (*N*-phenyl-4-piperidinamine)
APAA alpha-phenylacetoacetamide (2-phenylacetoacetamide)

APAAN alpha-phenylacetoacetonitrile

1-boc-4-AP 1-boc-4-anilinopiperidine (*tert*-butyl 4-(phenylamino)

piperidine-1-carboxylate)

CICAD Inter-American Drug Abuse Control Commission of the

Organization of American States

DEPAPD diethyl (phenylacetyl)propanedioate

EAPA ethyl *alpha*-phenylacetoacetate (ethyl 3-oxo-2-phenylbutanoate)
Europol European Union Agency for Law Enforcement Cooperation

GBL gamma-butyrolactone

GHB gamma-hydroxybutyric acid

INCBInternational Narcotics Control BoardINTERPOLInternational Criminal Police OrganizationIONICSProject Ion Incident Communication System

LSD lysergic acid diethylamide

MAMDPA methyl 3-oxo-2-(3,4-methylenedioxyphenyl)butanoate

MAPA methyl *alpha*-phenylacetoacetate (methyl 3-oxo-2-phenylbutanoate)

MDMA 3,4-methylenedioxymethamphetamine (commonly known as "ecstasy")

3,4-MDP-2-P 3,4-methylenedioxyphenyl-2-propanone

3,4-MDP-2-P methyl glycidate methyl ester of 3,4-MDP-2-P methyl glycidic acid

NPP N-phenethyl-4-piperidone
P2NP 1-phenyl-2-nitropropene
P-2-P 1-phenyl-2-propanone

PEN Online system
PEN Online Light system
PEN Online Light system
PICS
Pre-Export Notification Online Light system
Pre-Export Notification Online Light system
Precursors Incident Communication System

t-boc-MDMA N-tert-butoxycarbonyl-MDMA

UNODC United Nations Office on Drugs and Crime

WCO World Customs Organization