

RESEARCH LIST

Chemical Safety Databases: 6 Compared for Scope and Reuse (2026)

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Chemical safety databases answer two questions: what a substance does to people, and how it is classed for transport. Most answer the first; one here is built from the transport regulations.

All six are free to read. Free to reuse is a different matter, set by each publisher's terms page.

EXHIBIT 1

Six databases by task, provenance and reuse

Database	Primary purpose	Identifiers supported	Authority and provenance	Free to read	Licensed for reuse	Transport classification limit
Vektor UN number database	Route checks for 34 frequent substances	UN number only	Vektor Group; Dutch names matched to the official Dutch Table A	Yes, EN, DE, NL	Yes, CC BY 4.0	Mostly common names, not proper shipping names
BAM Dangerous Goods Database (DGG-Info)	Data from the dangerous goods regulations	UN number; records hold CAS and EC numbers	BAM, German federal authority	Yes, fee free since 23 Jul 2025, DE and EN	Yes, dl-de/by-2-0; no text and data mining without consent	Closest to transport here; BAM excludes liability for accuracy
ILO/WHO International Chemical Safety Cards	Workplace safety cards	Name, CAS, UN, ICSC number	Expert group for ILO and WHO	Yes, 19 language versions listed	No open licence on the card: all rights reserved	Class and pack group for the card's substance only
GESTIS Substance Database	Safe handling at work	ZVG, CAS, EC, Index numbers	IFA, German Social Accident Insurance	Yes, DE and EN	No: no commercial use or transfer; linking welcome	Transport data not stated
PubChem	Open chemistry database	Names, structures, CAS as depositor data	NIH, hundreds of contributing sources	Yes	Per source; NCBI adds no restriction itself	No transport claim

Database	Primary purpose	Identifiers supported	Authority and provenance	Free to read	Licensed for reuse	Transport classification limit
CAMEO Chemicals	Emergency response datasheets	Name, CAS, UN/NA number	NOAA with the US EPA	Yes, for those handling chemicals	Partly: third party data needs written permission	ADR not named

EXHIBIT 2

Where to start

Your situation	Where to look
Class, packing group, hazard number and tunnel code for a common UN number	Our UN number database (entry 1)
Regulation data for any UN number, in German or English	BAM DGG-Info (entry 2)
First aid, spill and storage advice from a CAS number	ICSC (entry 3) or GESTIS (entry 4)
CLP classification and labelling at work	GESTIS (entry 4)
Which compound a name or CAS number means, and who said so	PubChem (entry 5), reading each value's provenance
Emergency response information by UN/NA number	CAMEO Chemicals (entry 6)
Can I reuse the data in my own dataset?	The reuse column below

Sources

Vektor Group, UN number database <https://vektorgroup.eu/un-number-database>

BAM, DGG-Info search <https://www.dgg.bam.de/dgginfo/>

BAM, Datenbank GEFAHRGUT <https://tes.bam.de/datenbank-gefahr gut>

BAM, Gefahrgutdatenservice <https://tes.bam.de/datenbank-gefahr gut/produkte/gefahr gutdatenservice>

BAM, Aktuelles (version information) <https://tes.bam.de/datenbank-gefahr gut/aktuelles>

BAM, Merkmalsliste des BAM-Nummern-Systems (PDF) <https://tes.bam.de/fileadmin/TES/DE/Downloads/dgg-merkmale-nicht-radioaktiv.pdf>

BAM, Rechtliche Hinweise (terms of use) <https://tes.bam.de/datenbank-gefahr gut/rechtliche-hinweise>

ILO/WHO, International Chemical Safety Cards search <https://chemicalsafety.ilo.org/dyn/icsc/showcard.home>

ILO/WHO, ICSC 0015 Benzene https://chemicalsafety.ilo.org/dyn/icsc/showcard.display?p_lang=en&p_card_id=0015&p_version=2

ILO, Rights and permissions <https://www.ilo.org/rights-and-permissions>

GESTIS Substance Database <https://gestis-database.dguv.de/>

IFA, GESTIS Substance Database contents and use <https://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

IFA, Linking to GESTIS <https://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/verlinkung/index-2.jsp>

PubChem, About <https://pubchem.ncbi.nlm.nih.gov/docs/about>

PubChem, Downloading PubChem Data <https://pubchem.ncbi.nlm.nih.gov/docs/downloads>

NCBI, Policies and Disclaimers <https://www.ncbi.nlm.nih.gov/home/about/policies/>

CAMEO Chemicals, About <https://cameochemicals.noaa.gov/about>

CAMEO Chemicals, Terms and Conditions https://cameochemicals.noaa.gov/help/reference/terms_and_conditions.htm

