

ICCA Plastic Additives Initiative

Improving transparency
and supporting sound
management of additives
in plastics



Overview

International Stage for Additives

Objectives of Database and Risk Assessment Framework

- Support chemical management capacity building in developing economies
- Increased transparency regarding chemicals, including plastic additive use
- Aggregate existing health, environmental, & chemical management determinations
- Providing stakeholders with the tools and resources necessary to inform national, risk-based chemical management decisions

Plastic Additive Database

International Stage and Plastic Additives

Global Framework on Chemicals (GFC)

- Only overarching chemicals management framework at the international level
- ICCA 30 x 30 Ambition to help establish chemical management systems in 30 countries
 - ICCA is the second largest contributor to the GFC fund

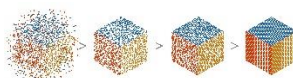
UNEP led negotiations of an International Legally Binding Instrument (ILBI) on plastic pollution, with a focus on the full lifecycle

- August 2025 – Phase 1 completed - 13,375 chemicals in total
 - 4,549 chemicals verified plastic additives in commerce
- September 2025 – December 2027 - Phase 2
 - Add additional government and other industry data with regular updates
 - Screening level risk assessment tool

Enabling Transparency for Additives

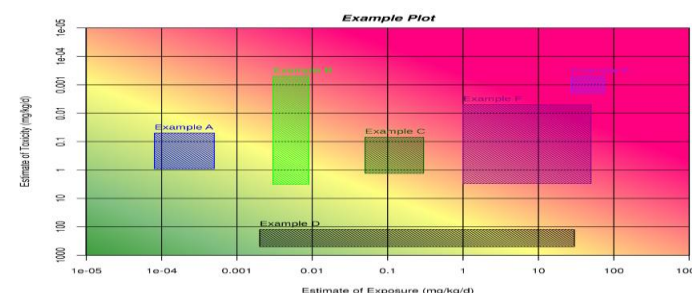
Additives in Commerce Database

- Comprehensive, tying use information with safety and regulatory data
- Connect with existing regulatory and toxicological data to aid in risk assessment
- Actively seeking collaborations and input from regulatory, academic, and NGO partners through roundtable discussions
- Developed for governments, academics and NGOs



Risk Assessment Framework

- Developing a framework tailored to the unique challenges of assessing chemicals in polymer matrices in initial use and post-recycling
- Provides a robust scientific foundation to support chemical management and regulation



Health and Environmental Sciences Institute (HESI)
www.risk21.org

Information Sources

ICCA Plastic Additives Database

- Enhances information in UNEP Report (13k)
- "Go to" source for integrated plastic additive information
 - Government assessments and datasets
 - Licensed data

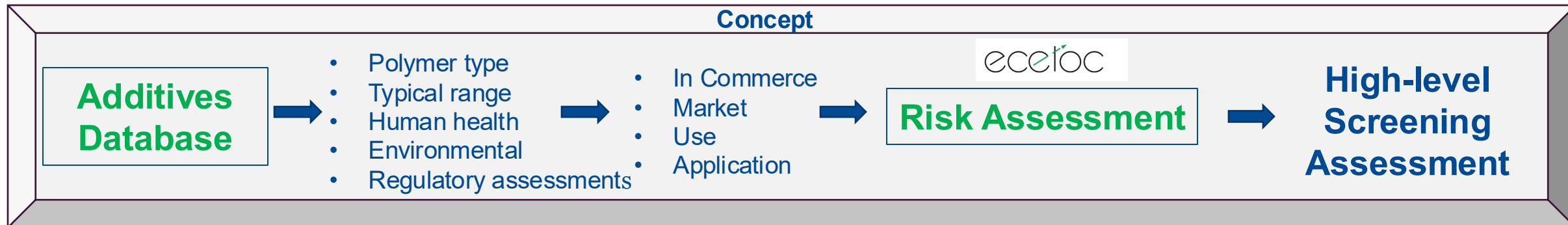
Chemical Abstracts Service (CAS)



CompTox Chemicals Dashboard v2.5.3

Additives in Commerce

- Industry survey to identify key metrics
 - "In-commerce" the past 10 years
 - Use info, polymer type, and typical concentration
- SpecialChem
 - AI assisted curation of company product catalogues



Database Toxicology and Regulatory Statistics

TOXICOLOGICAL DATA AVAILABLE FOR CHEMICALS IN ICCA DATABASE



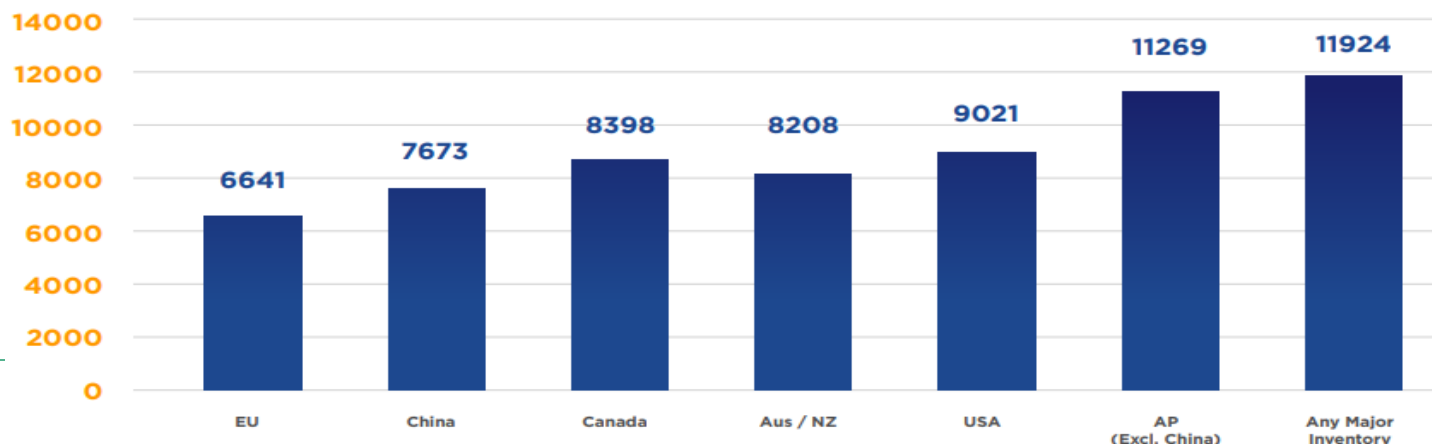
13,375 total chemicals

- Monomers to be added
- ~86% have accessible tox data to inform a screening-level risk assessment

4,549 verified plastic additives in commerce

- 90% have accessible tox data
- Additional work is ongoing for the remaining 10%
 - Pigments

NUMBER OF DATABASE CHEMICALS FOUND ON REGULATORY INVENTORIES



Chemical Inventory Listings

- 89.2% (11,924) of the 13,375 chemicals listed on an inventory
- 94.5% (4,300) of the plastic additives in commerce are already referenced
 - Over 70% are listed on 5 or more inventories

ICCA Plastic Additives Database Demo

Search & List View

Search → Search & List View

ICCA Chemical Search

Chemical Search

 25973-55-1

Data Source

Confirmed Additives 



Advanced search options

Confirmed Additives

Confirmed Additives + UNEP Reported Chemic

Name

CASRN

Polymers

Functions

Industrial Sectors

Confidence Used as Additive

Select One 

Status

Active 



CASRN

Name

InChIKey

[25973-55-1](#)

2-(2-Hydroxy-3,5-di-tert-pentylphenyl)benzotriazole

ZMWRRFHBXARRRT-UHFFFAOYSA-N



OVERVIEW

CHEMICAL IDENTITY

PHYSICAL CHEMICAL PROPERTIES

USE

CLASSIFICATION & LABELLING

REGULATION

HAZARD

EXPOSURE

ASSESSMENTS

☐ SHOW DESCRIPTIONS



Chemical Details: 2-(2-Hydroxy-3,5-di-tert-pentylphenyl)benzotriazole

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Data Sources/(Chemical Identified From)



Functions



Antioxidant



Biocide /
Anti-microbial
Agent



Filler / Fiber /
Reinforcer



Light
Stabilizer /
UV absorber



Lubricant



Other
Additives



Pigment /
Colorant



Processing
Aid

Uses



Automotive &
Transportation



Building &
Construction
(B&C)



Electrical &
Electronic
(E&E)



Fibers, Yarns,
Textiles &
Apparels



Furniture



Household
Products



Packaging -
Food



Packaging -
Other



Pipes, Hoses
& Fittings

Polymers



Acrylonitrile
Butadiene
Styrene (ABS)



Expanded
Polystyrene
(EPS)



High Density
Polyethylene
(HDPE)



Low Density
Polyethylene
(LDPE)



Other -
Rubbers



Other -
Thermoplastics



Other -
Thermosets



Polyamide /
Nylon (PA)



Polycarbonate
(PC)



Polyethylene
(PE)



Polyethylene
Terephthalate
(PET)



Polypropylene
(PP)



Polystyrene
(PS)



Polyurethane
(PUR)



Polyvinyl
Chloride
(PVC)



Polyvinyl
Chloride -
Flexible (PVC-
P)



Polyvinyl
Chloride -
Rigid (PVC-U)



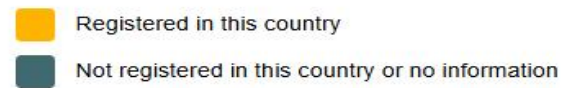
UNEP Identified only



Industry Identified Only



UNEP and Industry Identified



Chemical Details

Search → Search & List View → Chemical Details

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SHOW DESCRIPTIONS

Chemical Details: 2-(2-Hydroxy-3,5-di-tert-pentylphenyl)benzotriazole

Globally Harmonized System of Classification & Labelling of Chemicals (GHS)

[GHS Summary](#) 

Reliability:

High 

Note	Pictograms displayed are for 95.5% (1573 of 1647) of reports that indicate hazard statements. This chemical does not meet GHS hazard criteria for 4.5% (74 of 1647) of reports.
Signal	Warning
GHS Hazard Statements	H373 (85.7%): May causes damage to organs through prolonged or repeated exposure [Warning Specific target organ toxicity, repeated exposure]
	H413 (88.3%): May cause long lasting harmful effects to aquatic life [Hazardous to the aquatic environment, long-term hazard]
	H373: May causes damage to organs through prolonged or repeated exposure [Warning Specific target organ toxicity, repeated exposure]
	H410: Very toxic to aquatic life with long lasting effects [Warning Hazardous to the aquatic environment, long-term hazard]



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Regulation Details

Australia

Australian Inventory of Industrial Chemicals

<https://industrialchemicals.gov.au>

Canada

Canada Gazette, Part I, 148 #4:93 (25 Jan 2014)

Publication after the screening assessment of this substance. A Notice has been published that the Ministers of the Environment and of Health propose to recommend that this substance be added to Schedule I of CEPA since it meets one or more of the criteria set out in section 64 of the Act.

Canada

Canada Gazette, Part I, 150 #21:1533 (21 May 2016)

Publication of final decision after the screening assessment of this substance. A notice has been published that the Ministers of the Environment and of Health propose that this substance does not meet any of the criteria set out in section 64 of the Canadian Environmental Protection Act, 1999 (CEPA 1999). In addition, the Ministers propose to take no further action on this substance under section 77 of the Act.

Canada

Canada Domestic Substances List (DSL)

China

Inventory of Existing Chemical Substances in China



Chemical Details: 2-(2-Hydroxy-3,5-di-tert-pentylphenyl)benzotriazole

CASRN #: 25973-55-1

Risk Assessments

Source Entity Program	Source	Source URL
Australian Industrial Chemicals Introduction Scheme (AICIS)	AICIS Assessments	Link to chemical
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U.S. Environmental Protection Agency (EPA) High Production Volume Information System	EPA ChemView - HPVIS	Link to chemical
U.S. Environmental Protection Agency (EPA) Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) Inert Food/Nonfood Use Ingredients	EPA FIFRA Inert Food/Nonfood Use	Link to chemical
U.S. Food and Drug Administration Database of Indirect Additives used in Food Contact Substances	FDA Indirect Food Additives	Link to chemical
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Stockholm Convention	Risk Management Evaluation (RME)	Risk Management Evaluation URL
Stockholm Convention	Risk Profile	Risk Profile URL

Hazard Assessments

Source Entity Program	Source	Source URL
Canadian Environmental Protection Act (CEPA) categorization of existing substances on the domestic substances list (DSL)	Canada CEPA-Categorization of DSL	Link to chemical
U.S. Environmental Protection Agency (EPA) High Production Volume Information System	EPA HPVIS	Link to chemical



Questions?

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<https://iccadatabase.com/>

