

# CSD product datasheet 2022

## Academic users

### CSD-Community

### CSD-Enterprise

#### Data

|                                |                |   |
|--------------------------------|----------------|---|
| CSD deposited and curated data | ✓ <sup>1</sup> | ✓ |
| CSD teaching resources         | ✓              | ✓ |
| Proprietary CSD extension      |                | ✓ |

#### Deposit

|                                                                        |   |   |
|------------------------------------------------------------------------|---|---|
| Guided data deposition                                                 | ✓ | ✓ |
| CIF syntax check                                                       | ✓ | ✓ |
| Reduced cell check                                                     | ✓ | ✓ |
| Data validation                                                        | ✓ | ✓ |
| CSD DOI and curated CSD entry on publication                           | ✓ | ✓ |
| Direct publication through <i>CSD Communications</i>                   | ✓ | ✓ |
| Enhanced data discoverability                                          | ✓ | ✓ |
| Persistent, free storage of your data                                  | ✓ | ✓ |
| Deposition portal allowing you to access, edit and share your deposits | ✓ | ✓ |

#### Access

|                                                                        |   |   |
|------------------------------------------------------------------------|---|---|
| Retrieve via bibliographic info, DOI, CSD identifiers or compound name | ✓ | ✓ |
| Link from published articles and repositories                          | ✓ | ✓ |
| Publisher referee services                                             | ✓ | ✓ |

#### Search

|                                                                                          |  |   |
|------------------------------------------------------------------------------------------|--|---|
| Search by chemical formula, cell parameters, 2D/3D substructure, similarity, and more... |  | ✓ |
| Protein-ligand binding sites                                                             |  | ✓ |

#### Visualise

|                                               |   |   |
|-----------------------------------------------|---|---|
| 3D display and manipulation                   | ✓ | ✓ |
| High resolution graphics and movie generation | ✓ | ✓ |
| 3D printing file output                       | ✓ | ✓ |
| PXRD pattern simulation                       | ✓ | ✓ |
| PXRD pattern comparison                       |   | ✓ |
| Molecule and structure editing                | ✓ | ✓ |
| 2D diagram generation                         |   | ✓ |

#### Analyse

|                              |  |   |
|------------------------------|--|---|
| Plotting and charting        |  | ✓ |
| Descriptive statistics       |  | ✓ |
| Interactive visualisation    |  | ✓ |
| Filtering and categorisation |  | ✓ |
| Reporting                    |  | ✓ |

#### Integrations

|                                         |  |   |
|-----------------------------------------|--|---|
| CSD Pipeline Pilot Component Collection |  | ✓ |
| CSD KNIME Component Collection          |  | ✓ |

### Conformations

|                          |   |
|--------------------------|---|
| Bond length assessment   | ✓ |
| Valence angle assessment | ✓ |
| Torsion angle assessment | ✓ |
| Ring geometry assessment | ✓ |
| Conformer generation     | ✓ |

### Interactions

|                                      |   |
|--------------------------------------|---|
| Fragment interaction maps (IsoStar)  | ✓ |
| Protein interaction maps (SuperStar) | ✓ |
| Full interaction maps                | ✓ |

### Ligand-based drug discovery

|                             |   |
|-----------------------------|---|
| Ligand overlay              | ✓ |
| Field-based ligand screener | ✓ |
| Scaffold hopping            | ✓ |

### Structure-based drug discovery

|                             |   |
|-----------------------------|---|
| Protein-ligand docking      | ✓ |
| Ensemble docking            | ✓ |
| Pose analysis               | ✓ |
| Proprietary structures      | ✓ |
| Cavity similarity searching | ✓ |

### Solid form analysis

|                                                      |   |
|------------------------------------------------------|---|
| Motif searching                                      | ✓ |
| Packing feature searching                            | ✓ |
| Crystal packing similarity                           | ✓ |
| Calculations                                         | ✓ |
| Hydrogen bond propensity and coordination assessment | ✓ |
| Hydrate analysis                                     | ✓ |
| Solvate analysis                                     | ✓ |
| Aromatic analysis                                    | ✓ |
| Co-crystal design                                    | ✓ |
| Hydrogen bond statistics assessment                  | ✓ |

### Particle analysis

|                                         |   |
|-----------------------------------------|---|
| Predict particle facets                 | ✓ |
| Visualize surface chemistry and charge  | ✓ |
| Identify slip planes                    | ✓ |
| Surface interactions analysis           | ✓ |
| Full interaction maps on surface        | ✓ |
| Determine H-bond dimensionality         | ✓ |
| Visualize surface topology              | ✓ |
| Quantify surface chemistry and topology | ✓ |
| Python API particle analysis            | ✓ |

<sup>1</sup> Essential curated information for each entry is freely available through Access Structures on the CCDC website. More enhanced curated information is available through CSD-Core, CSD-Discovery, CSD-Materials and CSD-Enterprise

