

# checkCIF/PLATON report

No syntax errors found.      CIF dictionary      Interpreting this report

## Datablock: mrmn-b

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|                 |  |  |                |
|-----------------|--|--|----------------|
| Bond precision: | C-C = 0.0046 Å   | Wavelength=1.54184                             |                |
| Cell:           | a=39.4563(3)<br>alpha=100.1751(8)                                      | b=16.35832(15)<br>beta=90                      | c=90<br>gamma= |
| Temperature:    | 285 K  |  |                |
|                 | Calculated   | Reported                                       |                |
| Volume          | 9018.64(13)  | 9018.64(13)                                    |                |
| Space group     | P 21/n   | P 1 21/n 1                                     |                |
| Hall group      | -P 2yn   | -P 2yn   |                |
| Moiety formula  | 2(C30 H47 O P2 S), C9 H5<br>F6 O4 S2, C7 H5 O S2, C6<br>H6, 6(F), 3(O) | 2(C9 H5 F6 O4 S2), 2(C30<br>H47 O P2 S), C6 H6 |                |
| Sum formula     | C84 H110 F12 O10 P4 S6   | C84 H110 F12 O10 P4 S6                         |                |
| Mr              | 1824.02  | 1823.95  |                |
| Dx,g cm-3       | 1.343  | 1.343  |                |
| Z               | 4  | 4  |                |
| Mu (mm-1)       | 2.749  | 2.749  |                |
| F000            | 3832.0   | 3832.0   |                |
| F000'           | 3855.99  |  |                |
| h,k,lmax        | 17,49,20   | 17,48,20                                       |                |
| Nref            | 18304  | 17960  |                |
| Tmin,Tmax       |  | 0.745,1.000                                    |                |
| Tmin'           |  |  |                |

Correction method= MULTI-SCAN

Data completeness= 0.981      Theta(max)= 73.916

R(reflections)= 0.0549( 15661)      wR2(reflections)= 0.1531( 17960)

S = 1.068      Npar= Npar =1221

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The following ALERTS were generated. Each ALERT has the format  
test-name\_ALERT\_alert-type\_alert-level.  
Click on the hyperlinks for more details of the test.

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### Alert level C

|                   |  |              |
|-------------------|--|--------------|
| PLAT053_ALERT_1_C | Minimum Crystal Dimension Missing (or Error) ... | Please Check |
| PLAT054_ALERT_1_C | Medium Crystal Dimension Missing (or Error) ...  | Please Check |
| PLAT055_ALERT_1_C | Maximum Crystal Dimension Missing (or Error) ... | Please Check |
| PLAT242_ALERT_2_C | Low Ueq as Compared to Neighbors for ....        | C96 Check    |

PLAT340\_ALERT\_3\_C Low Bond Precision on C-C Bonds ..... 0.0046 Ang.



### Alert level G

|  |              |
|--|--------------|
| PLAT042_ALERT_1_G Calc. and Reported MoietyFormula Strings Differ  | Please Check |
| PLAT083_ALERT_2_G SHELXL Second Parameter in WGHT Unusually Large. | 14.07 Why ?  |
| PLAT142_ALERT_4_G su on b - Axis Small or Missing .....            | 0.00030 Ang. |
| PLAT143_ALERT_4_G su on c - Axis Small or Missing .....            | 0.00015 Ang. |
| PLAT242_ALERT_2_G Low Ueq as Compared to Neighbors for .....       | C216 Check   |
| PLAT242_ALERT_2_G Low Ueq as Compared to Neighbors for .....       | C237 Check   |
| PLAT301_ALERT_3_G Main Residue Disorder ..... Percentage =         | 3 Note       |
| PLAT302_ALERT_4_G Anion/Solvent Disorder ..... Percentage =        | 65 Note      |
| PLAT311_ALERT_2_G Isolated Disordered Oxygen Atom (No H's ?) ..... | 01 Check     |
| PLAT311_ALERT_2_G Isolated Disordered Oxygen Atom (No H's ?) ..... | 05 Check     |
| PLAT311_ALERT_2_G Isolated Disordered Oxygen Atom (No H's ?) ..... | 024 Check    |
| PLAT311_ALERT_2_G Isolated Disordered Oxygen Atom (No H's ?) ..... | 02 Check     |
| PLAT311_ALERT_2_G Isolated Disordered Oxygen Atom (No H's ?) ..... | 014 Check    |
| PLAT311_ALERT_2_G Isolated Disordered Oxygen Atom (No H's ?) ..... | 019 Check    |
| PLAT720_ALERT_4_G Number of Unusual/Non-Standard Labels .....      | 62 Note      |
| PLAT764_ALERT_4_G Overcomplete CIF Bond List Detected (Rep/Expd) . | 1.20 Ratio   |
| PLAT860_ALERT_3_G Number of Least-Squares Restraints .....         | 291 Note     |

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0 **ALERT level A** = Most likely a serious problem - resolve or explain  
0 **ALERT level B** = A potentially serious problem, consider carefully  
5 **ALERT level C** = Check. Ensure it is not caused by an omission or oversight  
17 **ALERT level G** = General information/check it is not something unexpected

4 ALERT type 1 CIF construction/syntax error, inconsistent or missing data  
10 ALERT type 2 Indicator that the structure model may be wrong or deficient  
3 ALERT type 3 Indicator that the structure quality may be low  
5 ALERT type 4 Improvement, methodology, query or suggestion  
0 ALERT type 5 Informative message, check

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It is advisable to attempt to resolve as many as possible of the alerts in all categories. Often the minor alerts point to easily fixed oversights, errors and omissions in your CIF or refinement strategy, so attention to these fine details can be worthwhile. In order to resolve some of the more serious problems it may be necessary to carry out additional measurements or structure refinements. However, the purpose of your study may justify the reported deviations and the more serious of these should normally be commented upon in the discussion or experimental section of a paper or in the "special\_details" fields of the CIF. checkCIF was carefully designed to identify outliers and unusual parameters, but every test has its limitations and alerts that are not important in a particular case may appear. Conversely, the absence of alerts does not guarantee there are no aspects of the results needing attention. It is up to the individual to critically assess their own results and, if necessary, seek expert advice.

#### Publication of your CIF in IUCr journals

A basic structural check has been run on your CIF. These basic checks will be run on all CIFs submitted for publication in IUCr journals (*Acta Crystallographica*, *Journal of Applied Crystallography*, *Journal of Synchrotron Radiation*); however, if you intend to submit to *Acta Crystallographica Section C* or *E*, you should make sure that full publication checks are run on the final version of your CIF prior to submission.

#### Publication of your CIF in other journals

Please refer to the *Notes for Authors* of the relevant journal for any special instructions relating to CIF submission.

