## checkCIF/PLATON report

You have not supplied any structure factors. As a result the full set of tests cannot be run.

THIS REPORT IS FOR GUIDANCE ONLY. IF USED AS PART OF A REVIEW PROCEDURE FOR PUBLICATION, IT SHOULD NOT REPLACE THE EXPERTISE OF AN EXPERIENCED CRYSTALLOGRAPHIC REFEREE.

No syntax errors found. CIF dictionary Interpreting this report

# **Datablock: shelxl**

Bond precision: C-C = 0.0149 AWavelength=0.71070 Cell: a=9.746(6) b=10.127(5) c=10.340(6) alpha=98.363(9) beta=111.609(15) gamma=91.830(18) Temperature: 295 K Calculated Reported Volume 934.7(9) 934.7(9) Space group P-1 P -1 Hall group -P 1 -P 1 Moiety formula C19 H14 O3 P Re S2 C19 H14 O3 P Re S2 C19 H14 O3 P Re S2 Sum formula C19 H14 O3 P Re S2 Mr 571.60 571.59 2.031 2.031 Dx,g cm-3 Ζ 2 2 Mu (mm-1) 6.825 6.826 F000 548.0 548.0 F000′ 546.93 h,k,lmax 12,13,13 12,12,12 Nref 4263 3359 0.180,0.293 0.055,0.068 Tmin,Tmax Tmin' 0.069 Correction method= # Reported T Limits: Tmin=0.055 Tmax=0.068 AbsCorr = MULTI SCAN Data completeness= 0.788 Theta(max) = 27.430R(reflections) = 0.0463( 3084) wR2(reflections) = 0.1202( 3359) S = 1.071Npar= 235

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.

#### 🔍 Alert level B PLAT029\_ALERT\_3\_B \_diffrn\_measured\_fraction\_theta\_full value Low . 0.948 Note 🏓 Alert level C PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of S1 Check PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of S2 Check PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of C5 Check PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of C10 Check PLAT342\_ALERT\_3\_C Low Bond Precision on C-C Bonds ..... 0.01487 Ang. PLAT360\_ALERT\_2\_C Short C(sp3)-C(sp3) Bond C4 - C5 ... 1.43 Ang. Alert level G PLAT003\_ALERT\_2\_G Number of Uiso or Uij Restrained non-H Atoms ... 10 Report PLAT005\_ALERT\_5\_G No Embedded Refinement Details found in the CIF Please Do ! PLAT328\_ALERT\_4\_G Possible Missing H on sp3? Phosphorus ..... P1 Check PLAT860\_ALERT\_3\_G Number of Least-Squares Restraints ..... 80 Note PLAT899\_ALERT\_4\_G SHELXL97 is Deprecated and Succeeded by SHELXL 2014 Note 0 ALERT level A = Most likely a serious problem - resolve or explain 1 ALERT level B = A potentially serious problem, consider carefully 6 ALERT level C = Check. Ensure it is not caused by an omission or oversight 5 ALERT level G = General information/check it is not something unexpected 0 ALERT type 1 CIF construction/syntax error, inconsistent or missing data 6 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

2 ALERT type 4 Improvement, methodology, query or suggestion

1 ALERT type 5 Informative message, check

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* or *IUCrData*, 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.

PLATON version of 08/07/2016; check.def file version of 05/07/2016

