

# checkCIF/PLATON report

Structure factors have been supplied for datablock(s) d467

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: d467

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Bond precision:	C-C = 0.0072 A	Wavelength=0.71073	
Cell:	a=24.8201(9)	b=10.1475(4)	c=7.8671(3)
	alpha=90	beta=91.459(3)	gamma=90
Temperature:	293 K		
	Calculated	Reported	
Volume	1980.78(13)	1980.77(13)	
Space group	P 21/c	P 1 21/c 1	
Hall group	-P 2ybc	-P 2ybc	
Moiety formula	C16 H14 Br2 Cl2 Co N2 O6	C16 H14 Br2 Cl2 Co N2 O6	
Sum formula	C16 H14 Br2 Cl2 Co N2 O6	C16 H14 Br2 Cl2 Co N2 O6	
Mr	619.92	619.94	
Dx,g cm-3	2.079	2.079	
Z	4	4	
Mu (mm-1)	5.209	5.209	
F000	1212.0	1212.0	
F000'	1212.83		
h,k,lmax	30,12,9	30,12,9	
Nref	3898	3891	
Tmin,Tmax	0.694,0.812	0.987,1.000	
Tmin'	0.332		

Correction method= # Reported T Limits: Tmin=0.987 Tmax=1.000  
AbsCorr = MULTI-SCAN

Data completeness= 0.998      Theta(max)= 26.020

R(reflections)= 0.0480( 2684)      wR2(reflections)= 0.0890( 3891)

S = 1.038      Npar= 264

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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 B**

PLAT420\_ALERT\_2\_B D-H Without Acceptor            05    -    H5A    ..    Please Check

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**Alert level C**

PLAT341\_ALERT\_3\_C Low Bond Precision on C-C Bonds ..... 0.0072 Ang.

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**Alert level G**

PLAT005\_ALERT\_5\_G No \_iucr\_refine\_instructions\_details in the CIF    Please Do !  
PLAT007\_ALERT\_5\_G Number of Unrefined Donor-H Atoms .....            4 Report  
PLAT199\_ALERT\_1\_G Reported \_cell\_measurement\_temperature ..... (K)        293 Check  
PLAT200\_ALERT\_1\_G Reported \_diffrn\_ambient\_temperature ..... (K)        293 Check  
PLAT300\_ALERT\_4\_G Atom Site Occupancy of \*Br1A is Constrained at    0.500 Check  
PLAT300\_ALERT\_4\_G Atom Site Occupancy of \*Br1B is Constrained at    0.500 Check  
PLAT300\_ALERT\_4\_G Atom Site Occupancy of \*Br2A is Constrained at    0.500 Check  
PLAT300\_ALERT\_4\_G Atom Site Occupancy of \*Br2B is Constrained at    0.500 Check  
PLAT300\_ALERT\_4\_G Atom Site Occupancy of \*Cl1A is Constrained at    0.500 Check  
PLAT300\_ALERT\_4\_G Atom Site Occupancy of \*Cl1B is Constrained at    0.500 Check  
PLAT300\_ALERT\_4\_G Atom Site Occupancy of \*Cl2A is Constrained at    0.500 Check  
PLAT300\_ALERT\_4\_G Atom Site Occupancy of \*Cl2B is Constrained at    0.500 Check  
PLAT301\_ALERT\_3\_G Main Residue Disorder ..... Percentage =            14 Note

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

2 ALERT type 1 CIF construction/syntax error, inconsistent or missing data  
1 ALERT type 2 Indicator that the structure model may be wrong or deficient  
2 ALERT type 3 Indicator that the structure quality may be low  
8 ALERT type 4 Improvement, methodology, query or suggestion  
2 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.

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**PLATON version of 21/06/2015; check.def file version of 21/06/2015**

