



## Test Report

No.: ETR23400550

Date: 12-Apr-2023

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HENKEL CORPORATION  
14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

The following sample(s) was/were submitted and identified by the applicant as:


Sample Submitted By : HENKEL CORPORATION  
Sample Name : ADHESIVE  
Style/Item No. : 8600

=====

Sample Receiving Date : 06-Apr-2023  
Testing Period : 06-Apr-2023 to 12-Apr-2023

Test Results : Please refer to following pages.

Test Requested	Conclusion
RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU	PASS
Other items : - Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ - HBCDD, $\beta$ - HBCDD, $\gamma$ - HBCDD) - Beryllium (Be) - Phthalates (DIDP, DINP, DNOP)	See Results

  
Troy Chang / Department Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei



PIN CODE: 592A3685



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No.: ETR23400550

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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

## Test Part Description

No.1 : SILVER COLORED PASTE

## Test Result(s)

Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Cadmium (Cd)	With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.	mg/kg	2	n.d.	100
Lead (Pb)	With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.	mg/kg	2	n.d.	1000
Mercury (Hg)	With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.	mg/kg	2	n.d.	1000
Hexavalent Chromium Cr(VI)	With reference to IEC 62321-7-2: 2017, analysis was performed by UV-VIS.	mg/kg	8	n.d.	1000
Monobromobiphenyl	With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Dibromobiphenyl		mg/kg	5	n.d.	-
Tribromobiphenyl		mg/kg	5	n.d.	-
Tetrabromobiphenyl		mg/kg	5	n.d.	-
Pentabromobiphenyl		mg/kg	5	n.d.	-
Hexabromobiphenyl		mg/kg	5	n.d.	-
Heptabromobiphenyl		mg/kg	5	n.d.	-
Octabromobiphenyl		mg/kg	5	n.d.	-
Nonabromobiphenyl		mg/kg	5	n.d.	-
Decabromobiphenyl		mg/kg	5	n.d.	-
Sum of PBBs		mg/kg	-	n.d.	1000
Monobromodiphenyl ether		mg/kg	5	n.d.	-
Dibromodiphenyl ether		mg/kg	5	n.d.	-
Tribromodiphenyl ether		mg/kg	5	n.d.	-
Tetrabromodiphenyl ether		mg/kg	5	n.d.	-
Pentabromodiphenyl ether		mg/kg	5	n.d.	-
Hexabromodiphenyl ether		mg/kg	5	n.d.	-
Heptabromodiphenyl ether		mg/kg	5	n.d.	-
Octabromodiphenyl ether		mg/kg	5	n.d.	-
Nonabromodiphenyl ether		mg/kg	5	n.d.	-
Decabromodiphenyl ether		mg/kg	5	n.d.	-
Sum of PBDEs		mg/kg	-	n.d.	1000



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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Butyl benzyl phthalate (BBP)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	1000
Dibutyl phthalate (DBP)		mg/kg	50	n.d.	1000
Di-(2-ethylhexyl) phthalate (DEHP)		mg/kg	50	n.d.	1000
Diisobutyl phthalate (DIBP)		mg/kg	50	n.d.	1000

Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Diisodecyl phthalate (DIDP) (CAS No.: 26761-40-0, 68515-49-1)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
Diisononyl phthalate (DINP) (CAS No.: 28553-12-0, 68515-48-0)		mg/kg	50	n.d.	-
Di-n-octyl phthalate (DNOP) (CAS No.: 117-84-0)		mg/kg	50	n.d.	-
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ - HBCDD, $\beta$ - HBCDD, $\gamma$ - HBCDD) (CAS No.: 25637-99-4, 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	With reference to IEC 62321-9: 2021, analysis was performed by GC/MS.	mg/kg	20	n.d.	-
Beryllium (Be) (CAS No.: 7440-41-7)	With reference to US EPA 3050B: 1996, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-

## Note :

1. mg/kg = ppm ; 0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit
3. n.d. = Not Detected ( Less than MDL)
4. "-" = Not Regulated
5. Unless otherwise stated , the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.

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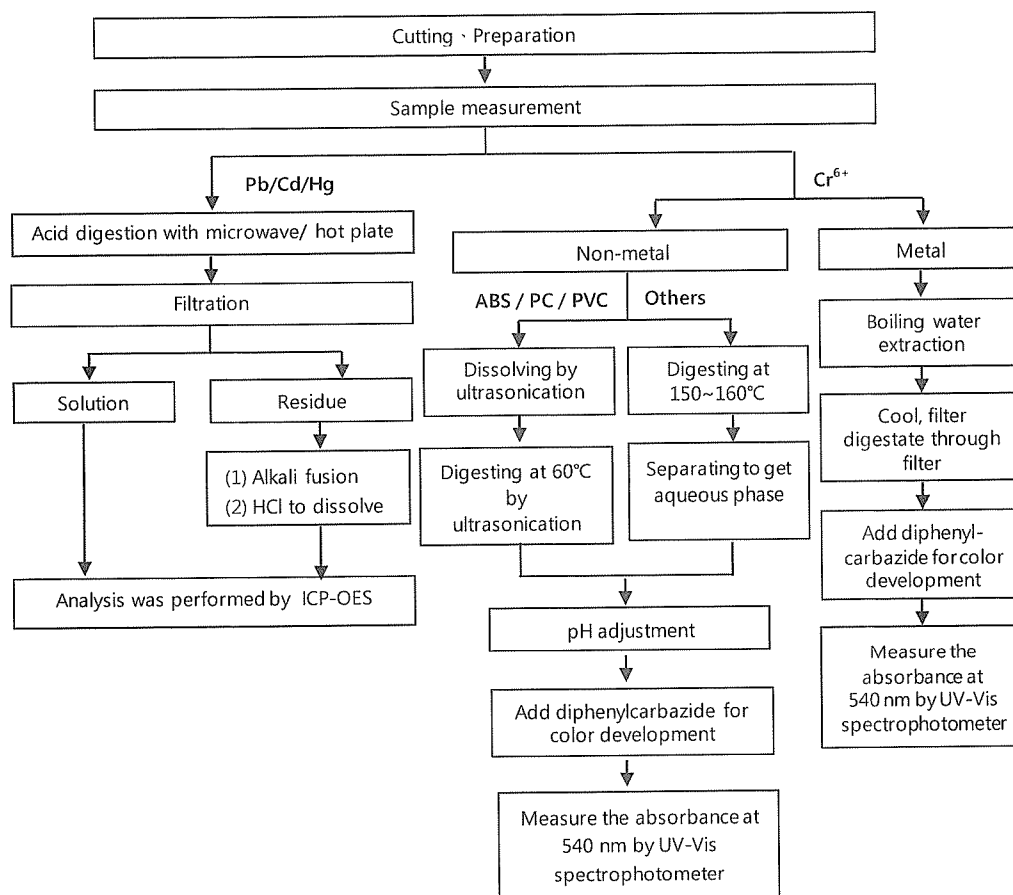
HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

### Analytical flow chart of heavy metal

These samples were dissolved totally by pre-conditioning method according to below flow chart.

(  $\text{Cr}^{6+}$  test method excluded )





# Test Report

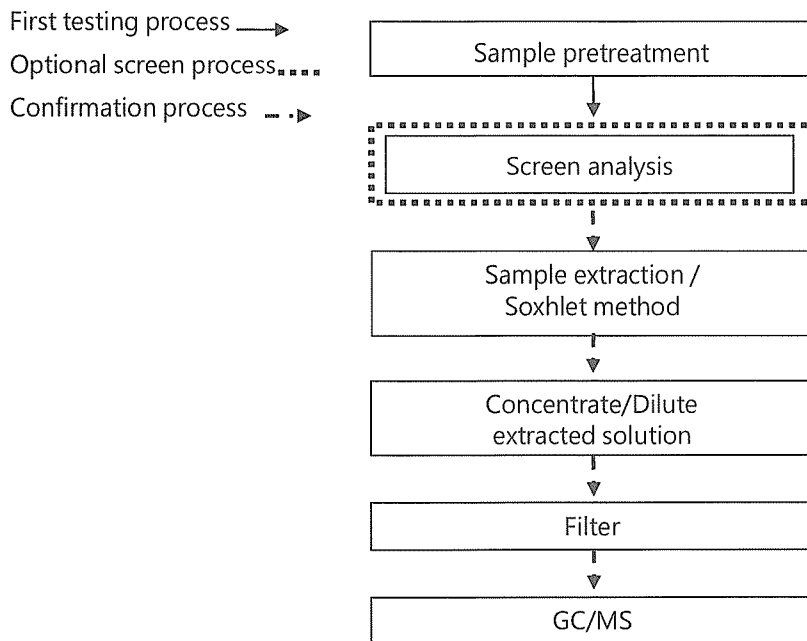
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14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

## Analytical flow chart – PBBs / PBDEs





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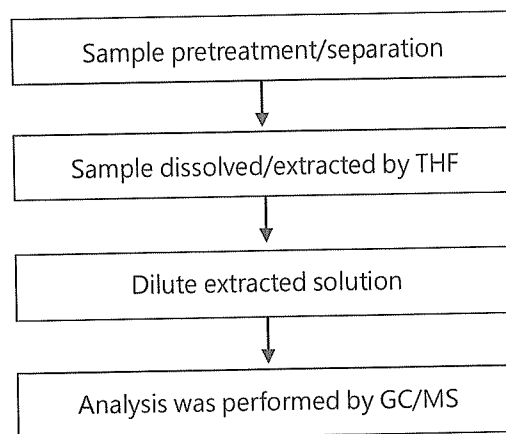
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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

## Analytical flow chart - Phthalate

【 Test method: IEC 62321-8 】





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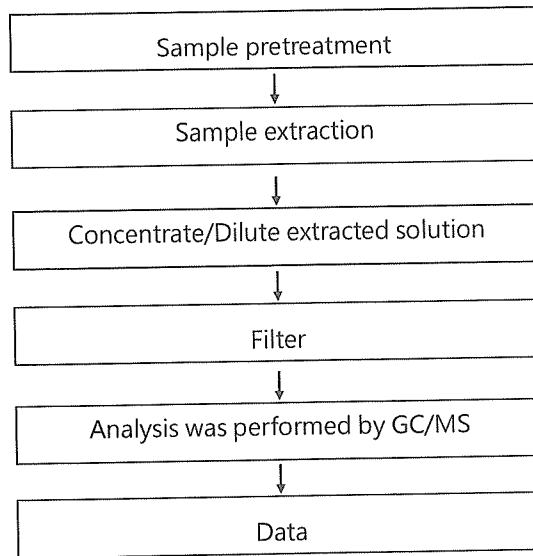
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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

## Analytical flow chart - HBCDD



## Test Report

HENKEL CORPORATION

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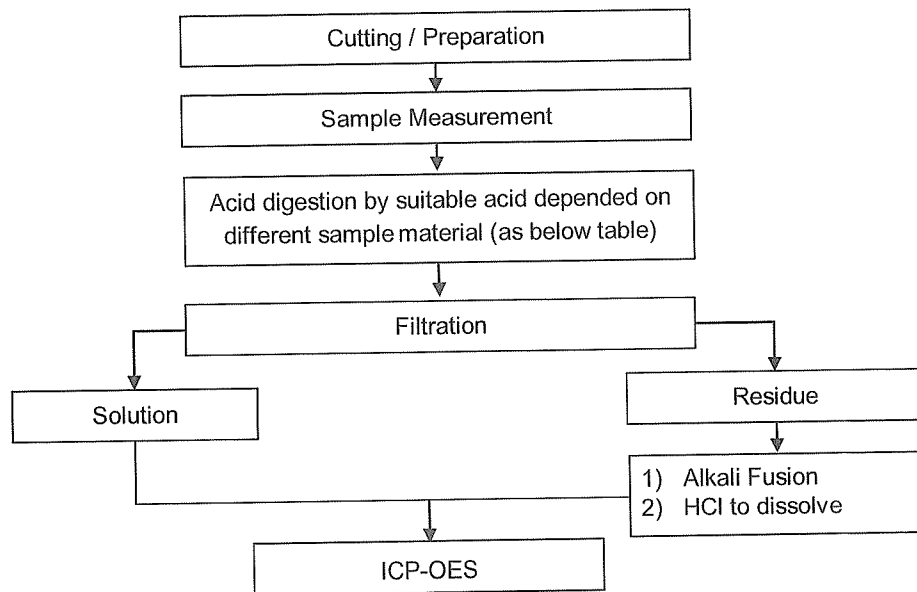
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### Flow Chart of digestion for the elements analysis performed by ICP-OES

These samples were dissolved totally by pre-conditioning method according to below flow chart.



Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Added appropriate reagent to total digestion





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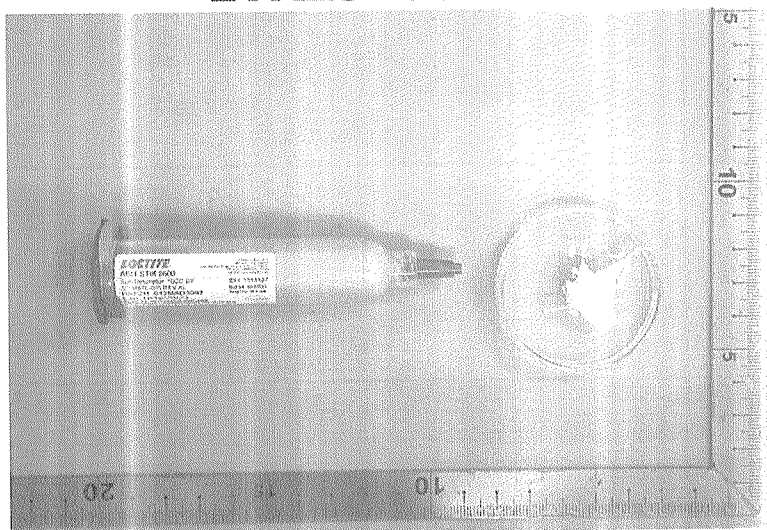
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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

**ETR23400550**



\*\* End of Report \*\*



Signature valid  
For Question Please  
Contact with SGS  
www.sgs.com.tw

## Test Report

No.: ETR23400551

Date: 12-Apr-2023

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HENKEL CORPORATION  
14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

The following sample(s) was/were submitted and identified by the applicant as:


Sample Submitted By : HENKEL CORPORATION  
Sample Name : ADHESIVE  
Style/Item No. : 8600

=====

Sample Receiving Date : 06-Apr-2023  
Testing Period : 06-Apr-2023 to 12-Apr-2023

Test Requested : Testing item(s) is/are specified by client. Please refer to result table for testing item(s).

Test Results : Please refer to following pages.

  
Troy Chang / Department Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei



PIN CODE: 3D0E0876



## Test Report

No.: ETR23400551

Date: 12-Apr-2023

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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

### Test Part Description

No.1 : SILVER COLORED PASTE

### Test Result(s)

Test Item(s)	Method	Unit	MDL	Result
				No.1
PFOS and its salts (CAS No.: 1763-23-1 and its salts)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.
PFOA and its salts (CAS No.: 335-67-1 and its salts)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.

### Note :

1. mg/kg = ppm ; 0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit
3. n.d. = Not Detected ( Less than MDL)
4. PFOS and its salts including :  
CAS No.: 1763-23-1, 2795-39-3, 29457-72-5, 29081-56-9, 70225-14-8, 56773-42-3, 251099-16-8, 307-35-7, 91036-71-4, 4021-47-0 and others.
5. PFOA and its salts including :  
CAS No.: 335-67-1, 335-95-5, 2395-00-8, 335-93-3, 335-66-0, 3825-26-1 and others.



## Test Report

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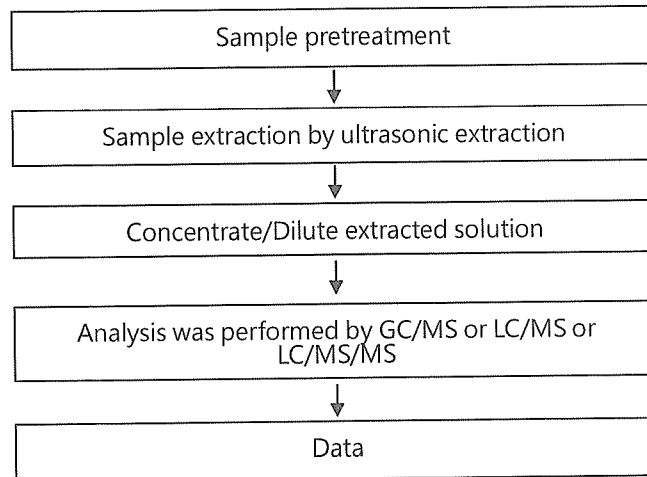
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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

Analytical flow chart – PFAS (including PFOA/PFOS/its related compound, etc.)





## Test Report

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Date: 12-Apr-2023

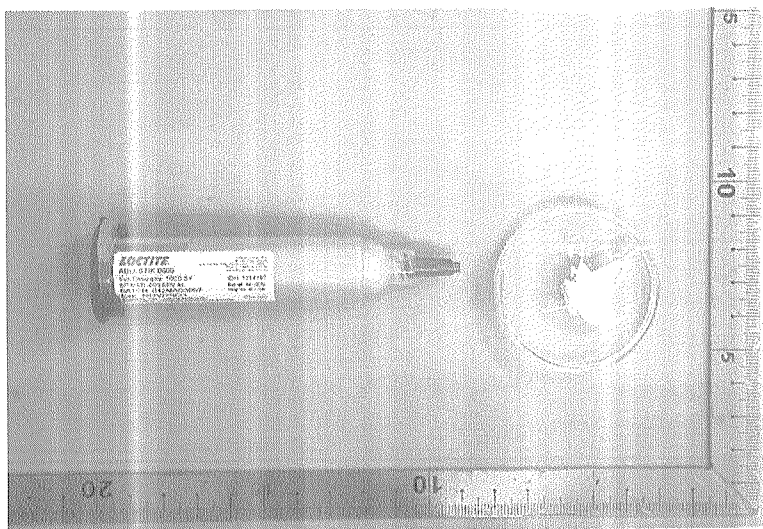
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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

**ETR23400551**



\*\* End of Report \*\*



## Test Report

No.: ETR23400547

Date: 12-Apr-2023

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HENKEL CORPORATION  
14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

The following sample(s) was/were submitted and identified by the applicant as:

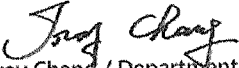
Sample Submitted By : HENKEL CORPORATION  
Sample Name : ADHESIVE  
Style/Item No. : 8600

=====

Sample Receiving Date : 06-Apr-2023  
Testing Period : 06-Apr-2023 to 12-Apr-2023

Test Requested : As specified by client, to test Halogen-Fluorine, Chlorine, Bromine, Iodine in the submitted sample.

Test Results : Please refer to following pages.

  
Troy Chang / Department Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei



PIN CODE: 0B3F1648



# Test Report

No.: ETR23400547

Date: 12-Apr-2023

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HENKEL CORPORATION  
14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

## Test Part Description

No.1 : SILVER COLORED PASTE

## Test Result(s)

Test Item(s)	Method	Unit	MDL	Result
				No.1
Fluorine (F) (CAS No.: 14762-94-8)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.
Chlorine (Cl) (CAS No.: 22537-15-1)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.
Bromine (Br) (CAS No.: 10097-32-2)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.
Iodine (I) (CAS No.: 14362-44-8)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.

## Note :

1. mg/kg = ppm ; 0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit
3. n.d. = Not Detected ( Less than MDL)



## Test Report

No.: ETR23400547

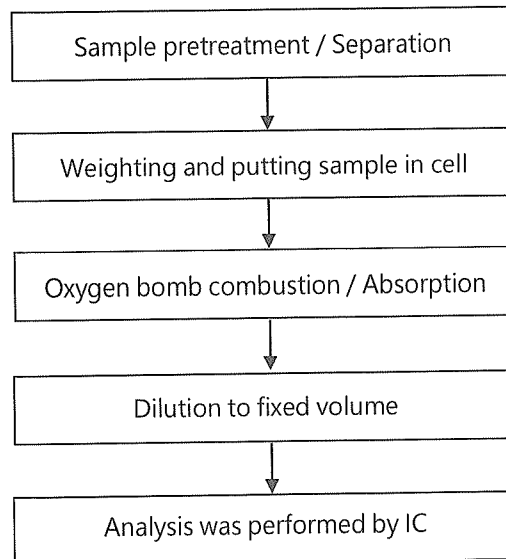
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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

### Analytical flow chart - Halogen







## Test Report

No.: ETR23400547

Date: 12-Apr-2023

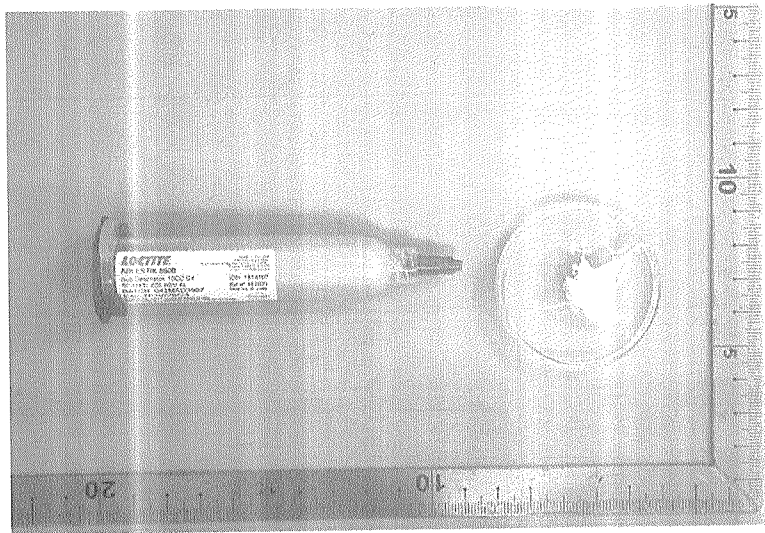
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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

**ETR23400547**



\*\* End of Report \*\*



# Test Report

No.: ETR23400548

Date: 12-Apr-2023

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HENKEL CORPORATION  
14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

The following sample(s) was/were submitted and identified by the applicant as:

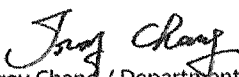
Sample Submitted By : HENKEL CORPORATION  
Sample Name : ADHESIVE  
Style/Item No. : 8600

=====

Sample Receiving Date : 06-Apr-2023  
Testing Period : 06-Apr-2023 to 12-Apr-2023

Test Requested : Testing item(s) is/are specified by client. Please refer to result table for testing item(s).

Test Results : Please refer to following pages.

  
Troy Chang / Department Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei



PIN CODE: 0862B665



## Test Report

No.: ETR23400548

Date: 12-Apr-2023

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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

### Test Part Description

No.1 : SILVER COLORED PASTE

### Test Result(s)

Test Item(s)	Method	Unit	MDL	Result
				No.1
Antimony (Sb) (CAS No.: 7440-36-0)	With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.	mg/kg	2	n.d.

### Note :

1. mg/kg = ppm ; 0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit
3. n.d. = Not Detected ( Less than MDL)



# Test Report

HENKEL CORPORATION  
14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

No.: ETR23400548

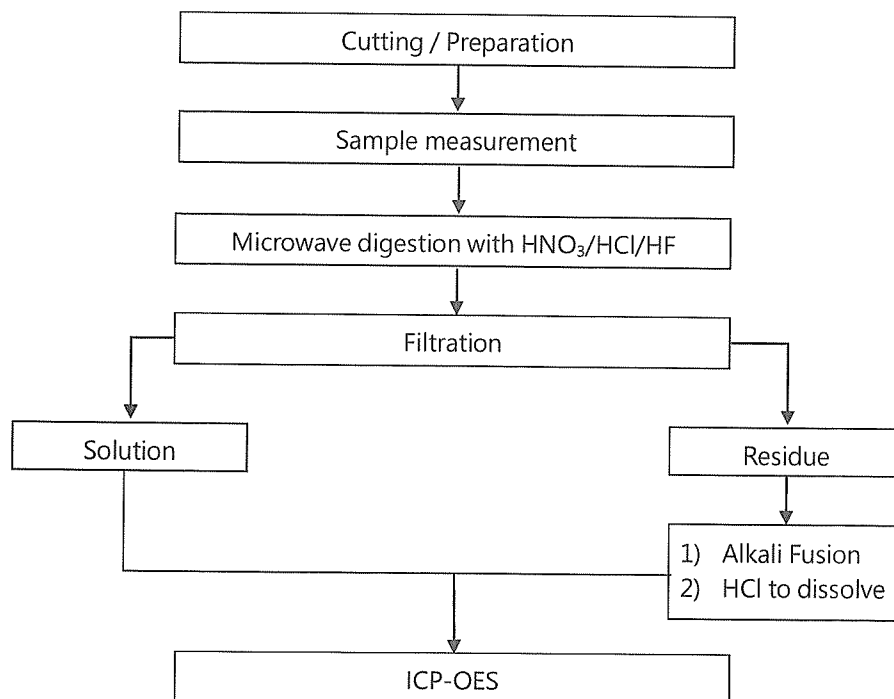
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## Analytical flow chart of Elements (Heavy Metal included)

These samples were dissolved totally by pre-conditioning method according to below flow chart.

【Reference method : US EPA 3051A 、 US EPA 3052】



\* US EPA 3051A method does not add HF.



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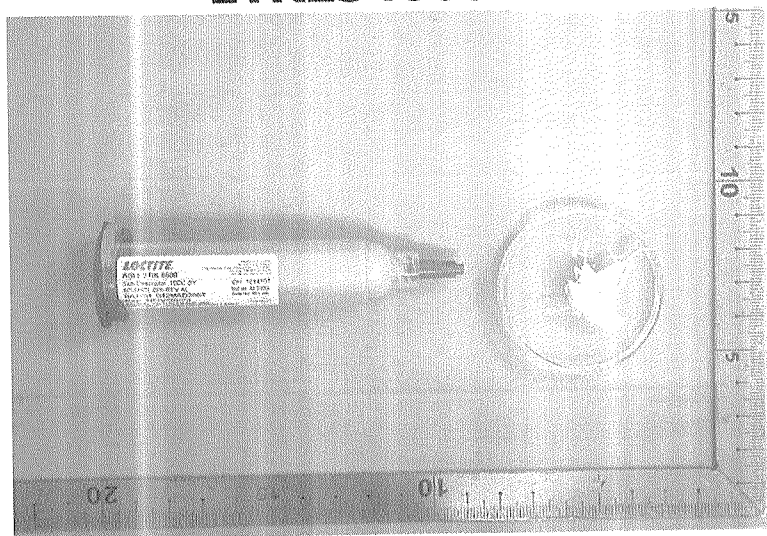
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HENKEL CORPORATION

14000 JAMBOREE ROAD, IRVINE, CALIFORNIA, 92606 U.S.A.

\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

**ETR23400548**



\*\* End of Report \*\*