



# BS6920 Test Report

REPORT NO. MA6048/S

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**Silicone Thread Sealant**

**Loctite 5331**

<b>CLIENT:</b>		Henkel Ltd Technologies House Wood Lane End Hemel Hempstead Herts HP2 4RQ	
<b>CLIENT'S REFERENCE:</b>		Mike North	
<b>DATE</b>		11 August 2017	
<b>REPORTED BY:</b>  JACQUELINE TREMAIN ANALYST		<b>REVIEWED BY:</b>  GREG STRETTON SENIOR ANALYST	

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**SUITABILITY OF NON-METALLIC PRODUCTS FOR USE IN CONTACT WITH WATER INTENDED FOR HUMAN CONSUMPTION WITH REGARD TO THEIR EFFECT ON THE QUALITY OF THE WATER  
WRAS TESTS OF EFFECT ON WATER QUALITY (BS 6920: 2014)  
AUDIT TESTS; SITE APPLIED PRODUCTS; HIGH TEMPERATURE TESTS (BS6920: PART 3: 2014)**

**INFORMATION AND GUIDANCE NOTE**

**WATER REGULATIONS ADVISORY SCHEME**

The Scheme wishes to draw to the attention of product manufacturers and users that reports issued by accredited test laboratories do not of themselves constitute approval by the Scheme or the test laboratory. Only a letter from the Scheme, citing a Directory Reference Number, can be regarded as indicating approval.

<b>1. SAMPLES FOR TESTING</b>	
<b>General composition of product</b>	silicone thread sealant
<b>Trade name and reference of material</b>	Loctite 5331
<b>Material manufacturer</b>	Loctite, Italy
<b>Submitting organisation</b>	Henkel Ltd,UK
<b>Batch number of product</b>	1670331533
<b>Date of manufacture of product</b>	February 2017
<b>Method of manufacture of sample</b>	pecially prepared test pieces
<b>Sampling procedure</b>	pecially prepared test pieces
<b>Description of sample</b>	white paste applied to the screw threads of a stainless steel coupling as per BS6920-2.1: clause 7.6
<b>Surface area of test piece</b>	N/A
<b>Number of articles constituting a test piece</b>	1
<b>Calibration mark of test containers</b>	1 litre
<b>Date of application</b>	11 April 2017
<b>Date of receipt of test samples</b>	20 April 2017
<b>Condition of samples on receipt</b>	satisfactory
<b>Method of packaging</b>	metal applicator tube
<b>Conditions of storage of the samples between receipt and testing</b>	as instructed in BS6920-2.1: 2014: clause 5.2
<b>Proposed use of the product</b>	thread sealing

## SITE APPLIED PRODUCTS

The samples were prepared in accordance with manufacturer's instructions to the user.

<b>Samples prepared by</b>	Intertek, Sunbury
<b>Appearance of product before application</b>	white paste
<b>Mode of preparation and application of the product</b>	the product was applied onto the screw threads of the stainless steel coupling which was then assembled
<b>Nature of test plates</b>	stainless steel coupling as per BS6920-2.1: clause 7.6
<b>Curing conditions</b>	96 hours at ambient (20-23°C)

## 2. ODOUR AND FLAVOUR OF WATER

Number of tasters in the taste panel – 3

Date tests commenced – 20 June 2017

Extraction temperature – 23°C

Extract 1

(i) chlorine free test water:

TASTER	ODOUR DESCRIPTION	FLAVOUR DESCRIPTION	FLAVOUR DILUTION NUMBER
1	nil	nil	<1
2	nil	nil	<1
3	nil	nil	<1

(ii) chlorinated test water:

TASTER	ODOUR DESCRIPTION	FLAVOUR DESCRIPTION	FLAVOUR DILUTION NUMBER
1	nil	nil	<1
2	nil	nil	<1
3	nil	nil	<1

Comment - thus the samples of this product have been found to comply with the requirements of BS 6920: Part 1: clause 4 when extracted at 23°C.

Extraction temperature – 85°C

Extract 1

(i) chlorine free test water:

TASTER	ODOUR DESCRIPTION	FLAVOUR DESCRIPTION	FLAVOUR DILUTION NUMBER
1	nil	astringent	1
2	nil	nil	<1
3	nil	astringent	2

(ii) chlorinated test water:

TASTER	ODOUR DESCRIPTION	FLAVOUR DESCRIPTION	FLAVOUR DILUTION NUMBER
1	nil	nil	<1
2	sweet	nil	<1
3	nil	nil	<1

Extract 7 (final extract)

(i) chlorine free test water:

TASTER	ODOUR DESCRIPTION	FLAVOUR DESCRIPTION	FLAVOUR DILUTION NUMBER
1	nil	nil	<1
2	nil	nil	<1
3	nil	nil	<1

Comment - thus the sample of this product has been found to comply with the requirements of BS 6920: Part 1: clause 4 when extracted at 85°C.

## 5. THE EXTRACTION OF SUBSTANCES THAT MAY BE OF CONCERN TO PUBLIC HEALTH

Extracts were tested using Monkey African Green Kidney CITES (Lot 10F019)

Extraction temperature – 23°C

Date test commenced – 6 June 2017

EXTRACT	GROWTH OF CELL TISSUE (MONOLAYER)
Reagent blank	healthy, confluent
Zinc sulphate validation solution (cytotoxic)	cell death
Sample	healthy, confluent

Comment - thus the sample of this product has been found to give a non-cytotoxic response and therefore it has been found to comply with the requirements of BS 6920: Part 1: clause 7 when extracted at 23°C.

## CONCLUSION

The sample of the product referred to in this report has been tested in accordance with the methods specified in BS 6920: Part 2: 2014 "Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water: Methods of test" (including High Temperature Tests in accordance with BS 6920: Part 3: 2014) and the requirements of the Water Regulations Advisory Scheme 'WRAS Materials Guidance, Version 4.4 dated 21 November 2016'.

**This product has satisfied the criteria set out in BS 6920: Part 1: 2014 "Specification" and thus complies with the requirements of the Water Regulations Advisory Scheme Tests of Effect on Water Quality (BS 6920: 2014): Site Applied Products / Audit Tests / Odour & Flavour of Water / Cytotoxicity / High Temperature Tests (85°C).**

NO OTHER TESTS WERE UNDERTAKEN ON THIS PRODUCT

N.B The results specified in this report relate only to the sample of the product submitted for testing. Any changes in the nature or source of ingredients and the process of manufacture or application could affect the suitability of the product for use in contact with potable water.

Materials and products intended for use by a public water supply company in the preparation or conveyance of water may need to satisfy more comprehensive toxicological requirements as set specified by the Drinking Water Inspectorate. These additional requirements are necessary to ensure legal compliance with Regulation 31 of Water Supply (Water Quality) Regulations 2000.

## NOTES FOR WRAS

Audit tests on product covered by our report ref. MA 4508/J dated 6 June 2012 and your letter ref Hannah Lewis dated 1 September 2016 relating to WRAS approval number 1206501.

This anaerobic adhesive has been tested in accordance to BS6920-2.1, clause 7.6.

Test samples of this product were prepared using non-standard curing conditions: This report should be submitted to Water Regulations Advisory Scheme for comment.

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