

## 5 PRODUCT SAFETY ASSESSMENT

**Name:** "Twoodie Wooden Gems"

**Date:** Final Review 29.10.2015

**Rev:** 3.0

**Status:** ~~Draft~~ FINAL

**Assessment conducted by:** STS staff/Jeanne Bardin



This Safety Assessment has been undertaken against the Toy Safety Directive 2009/48/EC using guidance from The British Toy and Hobby Association.

## Product and User Characteristics

### Product Description

This toy set consists of 12 wooden gems.  
Emerald cut shapes in 4 different woods and one size only  
Oak, Cherry, Zelkova and Walnut species are used and have been tested for EN71 safety for 0+ years

Minimal coating of Osmo oil which is EN71 food & safety tested

The product is supplied in a velvet pouch with ribbon, cardboard box and tissue paper.

Photo 1 Twoodie Gems

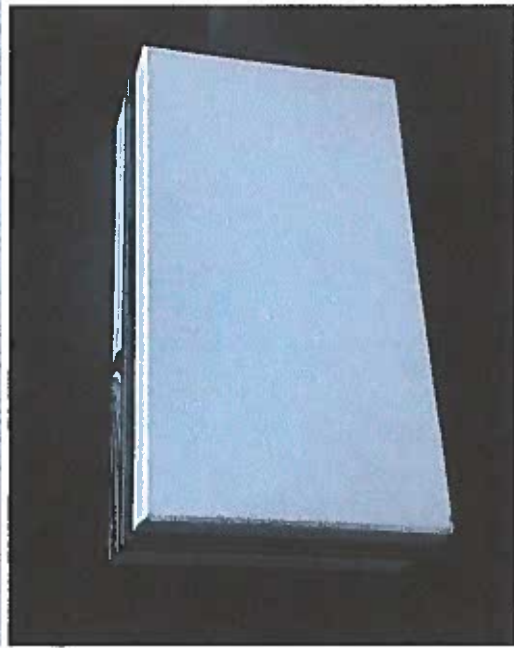
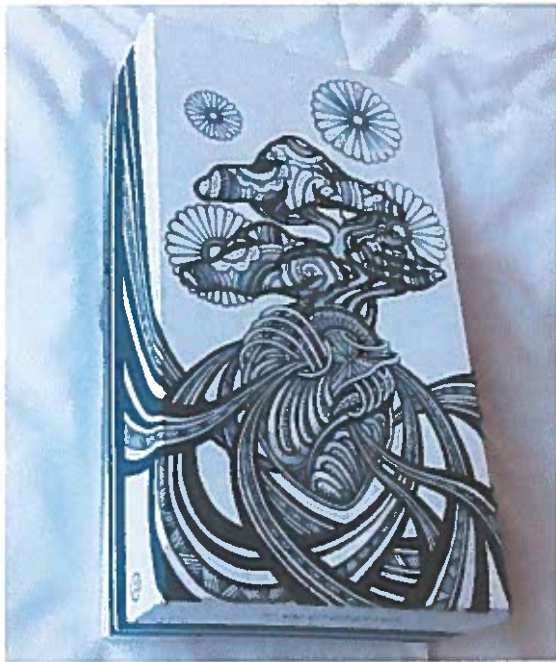


Photo 2 Twoodie Gems



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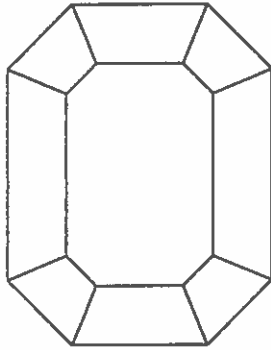
Front, back, side and inside views



NATURES LITTLE GEMS

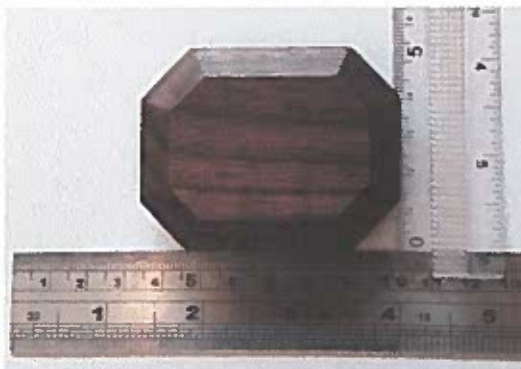
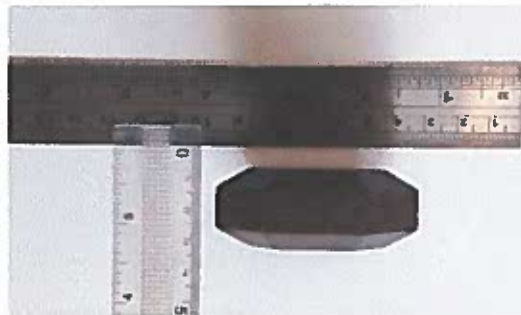
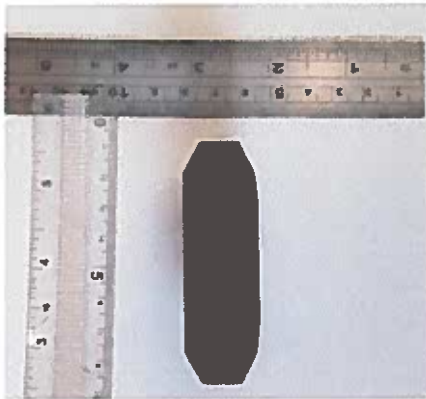
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PRODUCT CODE GEM1JPUKAW2015



IDENTICAL to LARGEST gem sample sent 25/08/15  
from Kukkia Pty Ltd

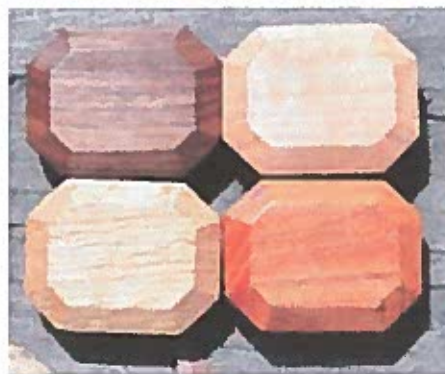
12 x Gems in sizes Width 50.7mm x Length 65mm  
Emerald cut shape



## COMPONENTS:

JAPANESE ZELKOVA x 3 gems  
AMERICAN OAK x 3 gems  
AMERICAN WALNUT x 3 gems  
JAPANESE CHERRY x 3 gems  
=12 TOTAL

FINISH: OSMO POLY X OIL,  
SATIN MATT FINISH NO. 3032



March 24, Jeanne Bardin  
All designs are exclusive to Twoodie.com

**TWOODIE**

## User Characteristics

Due to the construction of the gems it is envisaged that the emeralds will be held closely by babies and small children, this play style has been considered in doing this safety assessment.

## Bill of Materials

Toy Product: see above specification as of March 24

Woods: Walnut, Zelkova, Cherry, Oak

Osmo Oil Matt Finish 3032

Packaging:

Velvet bag with ribbon

Cardboard box

Tissue paper

Printed paper sheets 99x210mm

Specifications: see spec

Weights:

Bag = 25g

Box = 220g

Trims (paperwork) = 20gs

Gems = approx. 25g each, total is over 300gs

## Applicable Legislation and Standards

References listed below are consistent with the requirements under the European Union. This item "Twoodie Wooden Gems" has been manufactured and tested to these applicable legislations and standards.

General Product Safety Directive 2001/95/EC

The Toy Safety Directive 2009/48/EC

European Phthalates Directive 2005/84/EC

Packaging & Packaging Waste 94/62/EC

Heavy Metals Content in Packaging Material European Parliament and Council Directive 94/62/EC

### This item has been tested to the following standards / Requirements:

EN71-1:2014, Safety of Toys. Mechanical & Physical Properties

EN71-2:2011, Safety of Toys. Flammability

EN71-3:2011, Safety of Toys. Specification for Migration of Certain Elements

Azo Colourants - Textile. European Regulation (EC) No. 1907/2006 REACH Annex XVII, Entry no. 43

|                      |                 |
|----------------------|-----------------|
| EN71                 | -1: 2014        |
| EN71                 | -2:2011+A1:2014 |
| EN71                 | -3:2013+A1:2014 |
|                      |                 |
| EN 14362-1           |                 |
| EN 14362-3           |                 |
| Packaging (94/62/EC) | EPA 3052        |
| Packaging (94/62/EC) | EPA 3060A       |
| Packaging (94/62/EC) | EPA 7196A       |

5 tests – bag (2 tests for Chemical)

1 test – box

4 tests – wood chemical test (x 4 species)

1 – physical tests (x 4 woods)

1 – Flammability x (4 woods)

Total = 12 plus "overall paperwork and composition test" = 13

## Hazards not Directly addressed in the above Legislation and Standards

Consideration must be given to the materials in this toy and the subsequent expected play value this may add.

As the toy will be age graded from birth upwards there is the potential for a small baby to hold the toy for excessive amounts of time, studies have shown that infants lack the mental dexterity to release an object even though it may cause pain or discomfort. Taking this into account an assessment is required to ensure there are no known allergens, prohibited substances or other substances that when used in this type of product may have an effect on the end user.

Consideration will be given to inhalation of the wood scent as well as mouthing. There is an expected likelihood of an infant licking the toy.

## Risk of the Remaining Hazards

## Risk Assessment Approach

1. Estimate the likelihood of the hazard causing an injury
2. Assess the likely outcome should an injury occur
3. Evaluate the Risk

|                 |                                           |                     |                     |                      |
|-----------------|-------------------------------------------|---------------------|---------------------|----------------------|
| Likelihood<br>↑ | <b>Very likely</b>                        | <b>Medium<br/>2</b> | <b>High<br/>3</b>   | <b>Extreme<br/>5</b> |
|                 | <b>Likely</b>                             | <b>Low<br/>1</b>    | <b>Medium<br/>2</b> | <b>High<br/>3</b>    |
|                 | <b>Unlikely</b>                           | <b>Low<br/>1</b>    | <b>Low<br/>1</b>    | <b>Medium<br/>2</b>  |
|                 | <b>What is the chance it will happen?</b> | <b>Minor</b>        | <b>Moderate</b>     | <b>Major</b>         |
|                 |                                           | → <b>Impact</b>     |                     |                      |

Based on the table above with the current data the likelihood of an incident is **Unlikely** and the Impact if there was an incident is **Minor** therefore the initial risk rating is 1 **Low**.

### Risk Reduction

Currently we have data that indicates the woods are in compliance with the dangerous substances directive and are not on the current list of known allergens (prior to 2009/48/EC)

To ensure that the woods do not pose an allergic risk and that there are no chemicals of concern with a known history to lead to concerns when in the presence of babies the proposal is to conduct a Toxicological Risk Assessment against the existing regulations.



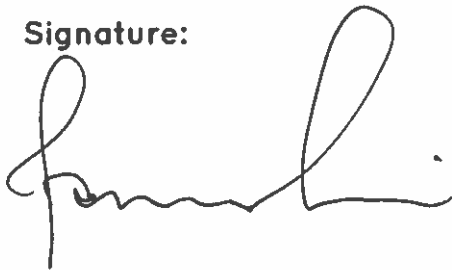
## Reduction and Management of Hazards

The intention is to eliminate all potential risk and therefore there will be no need to manage these, however as a result of the above assessment and user characteristics, there may be an outcome that specific labeling is required on the toy or its packaging.

## Reduction and Management of Hazards - Additional information

Every batch will be tested to ensure wood purity, finish purity and quality control.

**Signature:**



**Date Signed:**

24 | 11 | 15 .

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**Company/Position:**

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